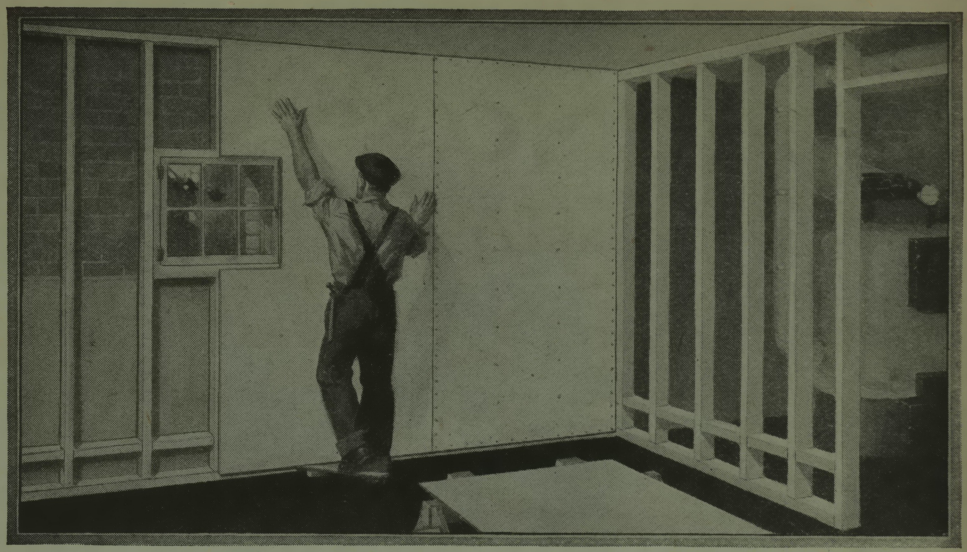
The CARPENTER

Published monthly by the United Brotherhood of Carpenters and Joiners of America, at 222 E. Michigan St., Indianapolis, Ind. One Dollar per year. Entered as second-class matter, July 22, 1915, at the Post Office of Indianapolis, Ind., under Act of Congress, Aug. 24, 1912. Acceptance for mailing at special rate of postage provided for in Section 1103, Act of October 3, 1917, authorized on July 8, 1918.

Volume XLIX—No. 6.

737
W. L. Waldron,
Route 4,
BURNSIDE, COUNTY

JUNE, 1929



Your alteration jobs

...done easily, satisfactorily, and with profit

Carpenters agree that nothing quite compares with quick-working, fireproof Sheetrock for alteration and repair work.

Sheetrock comes in convenient lengths, saws and nails like lumber, does not break in handling, and goes up rapidly. The job is done in minimum time, with minimum labor, and at *low* cost.

The job is an *excellent* one, too. Sheetrock's tough fiber surfaces and stout core of gypsum produce a rigid, sturdy, non-warping wall construction. In addition, its *patented folded square edges* provide extra nailing strength, and form snug-fitting, smooth joints for beautiful decoration.

Sheetrock advertising has inspired thousands of home owners to add new rooms, partition off others, to reline others . . . making work and money for the carpenter.

United States Gypsum Company
Dept. 4A, 300 W. Adams St., Chicago, Ill.

Canadian Gypsum Company, Ltd.
Hillyard Street, Hamilton, Ontario
Sole Canadian Distributors

SHEETROCK

U.S.G.

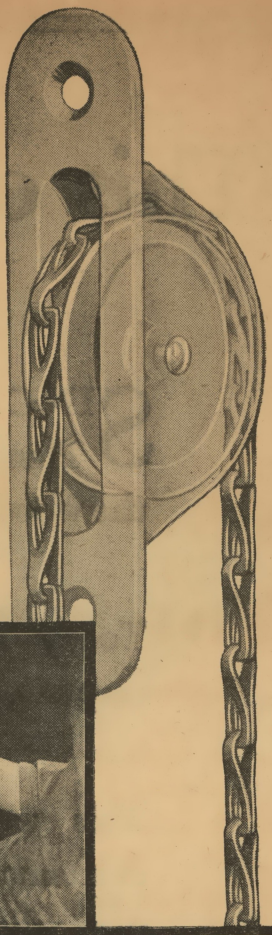
THE FIREPROOF WALLBOARD

ACCO No. 8 SASH CHAIN

costs less per window

ACCO No. 8 Sash Chain is the best window suspension material obtainable. It outwears and outlasts. It will not stretch, shrink, fray, tear or rot. It gives many years of trouble-free service, and *costs less to install!*

ACCO No. 8 Sash Chain costs more per foot *but costs less per window* so that the material saving alone more than offsets the difference in cost. There is also a big saving in labor cost.



Material saving

With cord, there are eight knots per window, which means a waste of four or five feet of material. With ACCO No. 8 Sash Chain simple attachments are used instead of wasteful knots and not one inch of material is wasted.

This means that 100 feet of ACCO No. 8 Sash Chain will hang on an average 2 more windows than cord; seven windows per 100 feet with chain as against 5 windows with cord.

Labor saving

A coil spring is first slipped into the end link of the chain. The other end of the chain is then fed over the pulley; it drops into the casing of its own weight—no "carpenter's mouse" is needed.

The weight is hooked to the other end of the chain, and the coil spring inserted into the sash, as shown in the photos at the right.

The above illustration shows how ACCO No. 8 Sash Chain is attached to the weight.

The Chain is then laid into the groove of the sash and the coil spring inserted into the bore of the sash, as shown at the right.

Both ends of the chain are thus securely and permanently fastened.

ACCO No. 8 Sash Chain operates over any cord pulley

It is not necessary to install special pulleys. ACCO No. 8 Sash Chain is made to operate perfectly over ordinary cord pulleys. Ask your hardware or builders' supply dealer for ACCO No. 8 Sash Chain.

AMERICAN CHAIN COMPANY, INC.
Bridgeport, Connecticut

World's Largest Manufacturer of Welded and Weldless Chains

ACCO
A PRODUCT OF THE AMERICAN CHAIN COMPANY, Inc.
in business for Your Safety

This old friend needs

SINCE 1869 the Stanley Bailey Plane has built friendship among the woodworking crafts.

Today it is the favorite of most carpenters all over the world.

This we feel is a tribute to our craftsmanship from a group of craftsmen who know what they want. We shall ever try to live up to it.

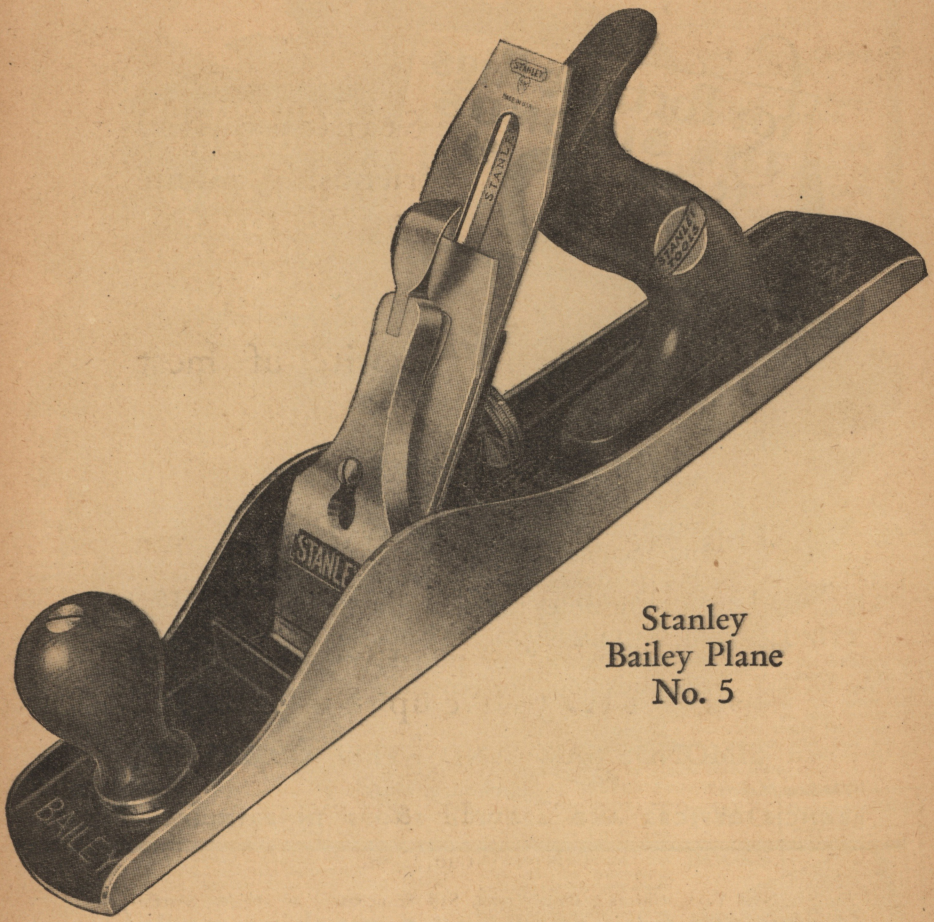
THE STANLEY RULE & LEVEL PLANT

New Britain, Conn.

New York, Chicago, Philadelphia, San Francisco, Los Angeles, Seattle

STANLEY

no introduction



Stanley
Bailey Plane
No. 5

TOOLS

STANLEY
S.W.

SIMONDS

SAWS FILES KNIVES STEEL

SIMONDS Saws have so much greater wearability—so much longer life—so much more value—that the country's leading manufacturers of electric hand saws and portable rigs, now supply Simonds Saws in order to insure the performance of their products. When ordering your next "electric" or portable rig, specify Simonds "60" for economy.

SIMONDS SAW AND STEEL COMPANY

"The Saw Makers" Fitchburg, Mass. *Established 1832*

BRANCH OFFICES AND SERVICE SHOPS IN PRINCIPAL CITIES

If you are now operating a machine–portable or electric hand–replace that unsatisfactory saw with a Simonds "60" blade. You'll save money and time and do a smoother job of cutting.

Ask for SIMONDS "SIXTY"

FREE BLUE PRINTS

AND FREE BOOK "HOW TO READ BLUE PRINTS"
SHOW YOU THE WAY TO

9 BIG PAY JOBS

1. Building Superintendent—$5,000 to $12,000.
2. Building Inspector—$4,800 to $8,000.
3. Appraiser—$6,000 to $10,000.
4. Material Buyer—$5,000 to $7,500.
5. Material Salesman—$5,000 to $12,000.
6. Building Estimator—$6,000 to $10,000.
7. Real Estate Expert—$5,500 to $12,000.
8. Construction Foreman—$4,500 to $8,500.
9. CONTRACTOR AND BUILDER IN A BUSINESS OF YOUR OWN—$5,000 to $12,000.

Find Out How Easy It Is to Make $4,500 to $12,000 a Year

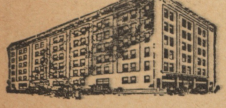
Learn to read Blue Prints this amazing new way! See how quickly and easily you can now train to make $4,500 to $12,000 a year! My FREE Book, "How To Read Blue Prints" discoses all the so-called "mysteries" of Blue Print reading. Another big Book, also FREE, gives you some startling facts about the 9 best jobs in America—jobs open only to Builders who can read Blue Prints and supervise others. Don't send one penny. Pay no C. O. D. Just mail the coupon at once.

NO longer need any ambitious carpenter spend years trying to pick up the "mysteries" of Blue Print Plan Reading. For now a quick, sure, PRACTICAL method has been perfected that has made thousands of building tradesmen Blue Print Experts in a surpringly short time.

LEARN AT HOME IN SPARE TIME

This is no ordinary "School course". It is practical from start to finish. It is based on many complete sets of real Blue Prints just as they are used by the contractor—these plans alone would cost thousands of dollars if purchased from the architect. Twenty famous experts in all lines of construction work talk over these Blue Prints with you. They show you every detail. Explain every short cut. Tell you the secret of quick, accurate Estimating. Explain Superintending. Give you for the first time many inside facts and money methods used by the "Giants" of the building industry.

Tihs is the kind of training that quickly puts building tradesmen into $4,500 to $12,000 a year jobs—or into profitable contracting businesses of their own. Yet now you get it right at home in 2 or 3 months. It requires no extensive education. If you can read and understand what is written here you can easily master it.



If You Live Nearby
Visit our big day or evening school attended by over 1,000 builders. You can now get the same training at home by mail—same plans, lessons and instructors. Your spare time is enough. Act today!

Chicago Technical SCHOOL for BUILDERS
Dept. G102, 118 E. 26th St., Chicago, Ill.

SUCCEED LIKE THESE MEN

See what this training has done for others. Bartholomew, Cal., became a contractor and made over 300 per cent more money his first year. Dickerson, R. I., increased his salary over 700 per cent in 12 months, Blair, Okla., stepped up to Superintendent at a 100 per cent increase. Marchand, La., says: "My income has increased over 200 per cent and I now have more contracting work than I can do."

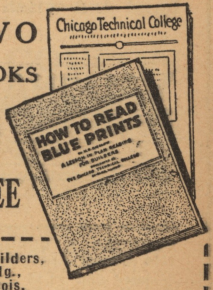
AMAZING OPPORTUNITY

You men who work with your tools in the building trades are the "backbone" of the building industry. You make good money now. But why be satisfied with just a scale wage? Why not get a bigger share of the seven billion dollars that will be spent this year in new construction? Why not fit yourself in a few short weeks for your choice of any one of the 9 steady, big-pay jobs that are open everywhere. Decide now to step into $4,500 to $12,000 a year and up, just as others have done.

MAIL THE COUPON TODAY

Accept my FREE gift of a complete set of real working Blue Prints. Get my fascinating book "How To Read Blue Prints" that tells all the interesting and instructive facts about Blue Print Plans. Examine my other big book that gives the remarkable facts about the 9 best jobs in America. Don't send me one penny. Pay no C. O. D. It's all FREE. Just fill out and mail the coupon today.—RIGHT NOW!

TWO BOOKS also FREE



**Chicago Technical School for Builders,
Dept. G-102 Chicago Tech. Bldg.,
118 E. 26th St., Chicago, Illinois.**

Please send me your FREE Blue Prints and 2 Big books. I understand these are mine to keep without obligation. It is also understood that no salesmen will call on me.

Name ----------

Address ----------

Town ---------- State----------

Weight	Handle
20 oz.	14 in.
16 oz.	13 in.
13 oz.	13 in.
10 oz.	12 in.

THE BUILDING of a NATION

Vaughan's Vanadium Drop Forged Hammers have played a vital part in the development of practically every city, village and hamlet in the United States. Master craftsmen have long demanded Vaughan and Bushnell Hammers—There is a reason—

A special heat treating process employed in their manufacture gives them the strength and toughness to withstand the hardest use and gives a long life. Driving face is rounded. Sides are curved to eliminate denting wood in matched flooring and wainscoting. Handle especially designed to prevent all jars reaching the hand and wrist.

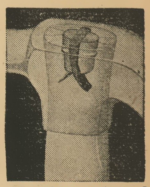
VAUGHAN & BUSHNELL MANUFACTURING COMPANY

Makers of Fine Tools

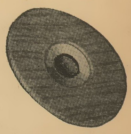
2114 Carroll Ave. Chicago, Ill. U.S.A.

V&B

VAUGHAN'S TOOLS insure an easier day's work



Vaughan patented expansion wedge adds 900 pounds to the holding on power of the head.



Wax hole in end of handle provides storage for a ball of wax.

VAUGHAN & BUSHNELL MFG. CO.,
2114 Carroll Ave., Chicago, Ill.

Enclosed find $2.25 for which please send me one ---------- (specify size) Vaughan's Vanadium Drop Forged Hammer.

My Dealer's name is----------

His Address is----------

Ship Hammer to----------

Address ----------

City and State----------

IT'S DIFFERENT!

The CLARKE Makes You Money

Never any "Lay-offs"—Never any uncertainties in the CLARKE Floor Finishing business, FlorKraftsmanship. Every building, old and new, needs your services—and the owners will pay you $25 to $75 a day!

Here's your chance. You can start in this business with small capital. You can be the boss. Many is the carpenter who has done this—they own more of this world's goods—they are earning an independent income with their Clarke Vacuum Portable Sander.

This wonderful machine works on a new but time-tested principle—correct speed takes the place of weight! That's why the CLARKE does any sanding job at such little cost to you.

You've seen other fellows struggling all day with the big, old-time sanders—back-breakers that take a crew of men and truck to haul them—that eat up all the profits with special wiring and big power bills—that slide over the work, and dodge the little places, the closets, the hallways, etc.

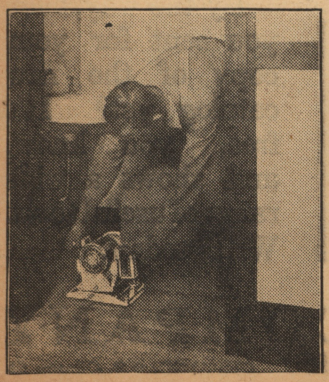
But the CLARKE is as different as day is from night. You **carry** the CLARKE to the work **with one hand!** Actually weighs only 31 pounds!

Its not a whopper in size and weight—and how it **does** turn the work out! Puts beautiful, flawless, glassy-smooth finish on 800 to 2000 square feet of flooring a day! Makes old floors shining **new** at the rate of 300 to 1000 square feet in eight hours. And get this straight! The CLARKE does a **complete** job—in the big areas—in the little places like the closets and hallways—sands up so close to the base-board, the quarter-round practically covers what's left! Hardly any hand scraping at all. If you should have a counter, a table, or interior trim to smooth up—just take off the floor handle and pick it up in your hand. It then weighs only 22 pounds, and you can do the finest cabinet finish.

The CLARKE puts and keeps the money in your pocket. Runs off any light socket—no special wiring or big power bills. Saves on sand-paper—and saves **you!** About as easy to run as a vacuum cleaner—and just as dustless. The powerful vacuum keeps the air clean, and the surroundings spic and span.

The longer you wait, the more money you are losing. Get the things you want—money, reputation, success—in a business of your own. For your own good get all the facts Now! They're yours for the asking. DON'T DELAY!

MAIL THE COUPON



CLARKE SANDING MACHINE CO.
Dept. C-36, 3817 Cortland St., Chicago, Ill.

For twelve years Originators and Manufacturers of Portable Sanding Machines.

POWERFUL - FAST CUTTING
CLARKE
VACUUM PORTABLE SANDER
TRADE MARK

Clarke Sanding Machine Co., Dept. C-36, 3817 Cortland St., Chicago, Ill.

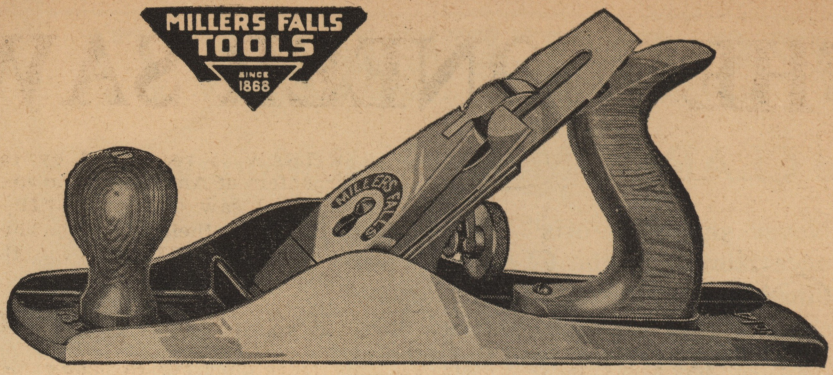
Gentlemen: Please send the facts about the Clarke Vacuum Portable Sander—No obligation on my part.

Name .....

Address .....

City ..... State.....

MILLERS FALLS TOOLS
SINCE 1868

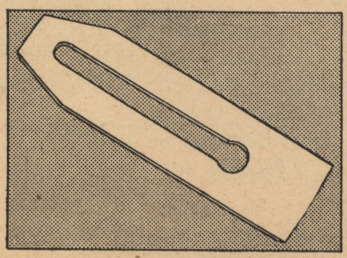


FULL CUTTING TIME

Less Sharpening with the *New* MILLERS FALLS PLANES

The secret's in the long life cutting edge - an edge that gives you full cutting time on the job, that needs less sharpening and reconditioning, that makes your work easier and better. The steel used in this improved cutting edge is tempered by a new electrical process that insures uniformity and longer life.

Think of owning a plane that never chatters or slips. Millers Falls Planes have done away with chattering by means of a 3-point bearing of the lever cap. Bottoms and frogs are all cast-iron with the weaker parts extra reinforced to guard against breakage. They're a delight to work with - these new planes - smooth cutting, exact balance, comfortable grip, with no chatter and able to stand a lifetime of hard use.



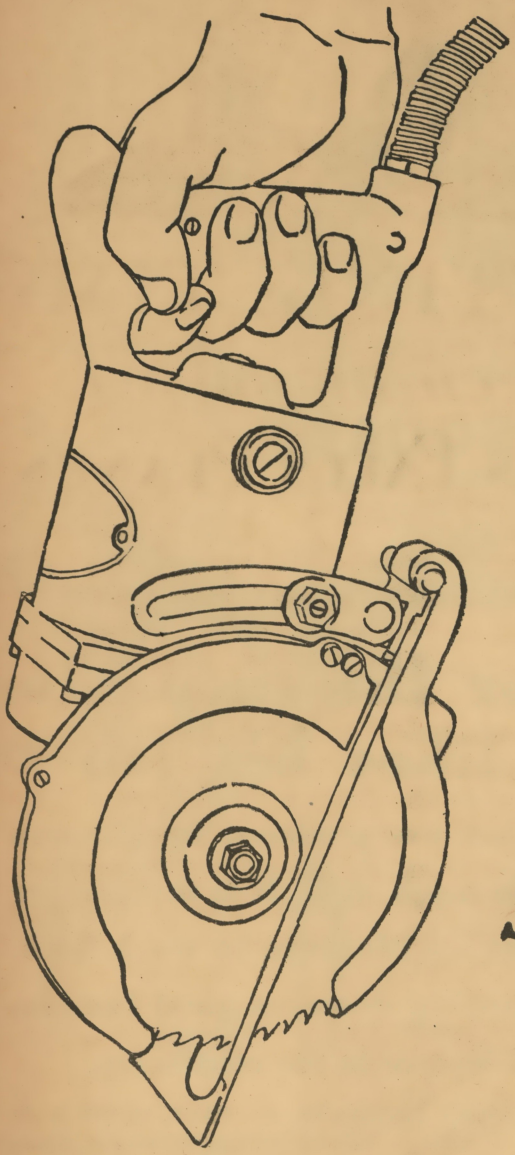
Try one out and note the difference. The line covers every need - Sizes 7 to 24 inches, smooth and corrugated bottoms in bench planes, 21 block plane models. You'll find them at your dealers.

By the way, have you sent for your copy of the new catalog yet? It's free, you know, and shows a wide range of useful tools. Write today.

MILLERS FALLS COMPANY

NEW YORK: 28 Warren St. MILLERS FALLS, MASS. CHICAGO: 9 S. Clinton St.

THE PIONEER SAW



SKILSAW is recognized by the carpenters of America as the electric hand saw that puts—ZIP—SPEED—in their sawing. They all know that SKILSAW was the first of its kind

THAT MADE SAWING

a "cinch" for the carpenter. All he has to do is to—plug into a socket—place SKILSAW on the work—"turn on the juice"—guide it along the line for a few seconds—and the wood is cut—and how! You'd have to run it yourself to really see why it's so

EASY FOR THE

carpenter to use SKILSAW. Light in weight, easy to handle and operate—you can saw for hours and you'll never tire. And speed and power—it has plenty of both! Fastest and most powerful saw per lb. and per dollar—a demonstration will prove that to any

CARPENTER

who "knows his electric hand saws". SKILSAW is made in FOUR sizes—cutting capacities 0" to 4½—weighing 10 to 34 lbs. You should see SKILSAW in action—see it rip, cross-cut, groove, mitre and bevel. Try it yourself—get the "feel of it"—in that way you'll realize that carpenters have a good reason to prefer

SKILSAW

Write today for a demonstration. Even tho you are not ready to buy, you should get acquainted with this wonderful tool. No obligation.

Just fill out the coupon below and mail it today to

SKILSAW INC
3311 Elston Ave., Chicago, Illinois

NAME .....

ADDRESS .....

CITY ..... STATE..... No. 69.

Made for the carpenter who likes his job

4-Square Lumber was produced for the man who likes to do a job well. It is fine lumber—clean lumber—a pleasure to work with. Good craftsmanship deserves good lumber.

Suggest 4-Square to the contractor.

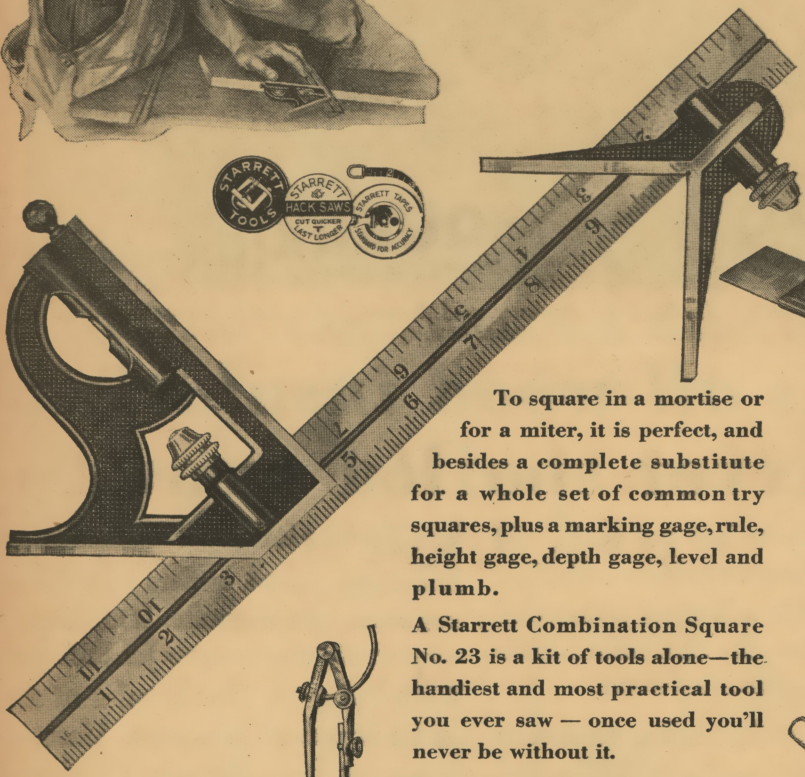
WEYERHAEUSER FOREST PRODUCTS, ST. PAUL, MINNESOTA

Weyerhaeuser Sales Co., *Distributors*, Spokane, Washington. *District Offices:* Minneapolis, Kansas City, Chicago, Toledo, Pittsburgh, Philadelphia, New York

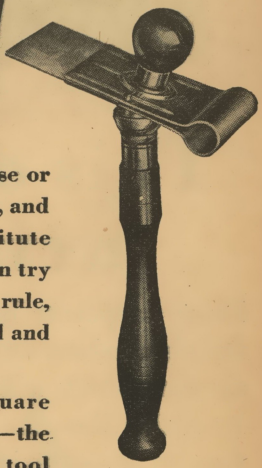
4 SQUARE LUMBER

SPECIES and **GRADE** are **MARKED** and **GUARANTEED**

On every job you can use a Starrett Combination Square No. 23



Starrett Scraper No. 181

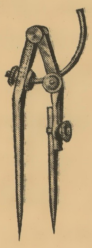


To square in a mortise or for a miter, it is perfect, and besides a complete substitute for a whole set of common try squares, plus a marking gage, rule, height gage, depth gage, level and plumb.

A Starrett Combination Square No. 23 is a kit of tools alone—the handiest and most practical tool you ever saw — once used you'll never be without it.

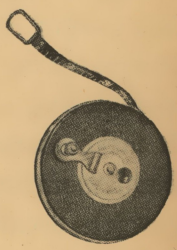
You can al vays rely on Starrett Tools.

Send for the Starrett Catalog No. 24 "E" which describes and illustrates over 2500 Starrett Tools. Free on request.



Starrett Dividers No. 92

Starrett Level No. 132



Starrett Steel Tape No. 530

THE L. S. STARRETT CO.

World's Greatest Toolmakers
Manufacturers of Hacksaws Unexcelled
Steel Tapes—Standard for Accuracy

ATHOL, MASS. U. S. A.

Use Starrett Tools

Charles Hauck, Columbus, Ohio, carpenter, used Masonite in this double house for sheathing and as a plaster base. He also used it in the parting wall to make it soundproof.

This *all-wood insulation* never spoiled a saw

Every carpenter has pet tools, old friends who have served him well. They are tools which will never be harmed by cutting Masonite Structural Insulation, for Masonite is all wood.

But ease of cutting and protection to tools is but one reason for building and remodeling with Masonite. It makes warm friends as it builds warm houses. It leads to new jobs because it does jobs better. And it builds as it insulates because it is *structural* insulation.

Encourage home owners to remodel and build with Masonite. It means new comfort for them—new jobs for you.

Write today for free samples of Masonite Structural Insulation, Masonite Insulating Lath, Masonite Presdwood and the book of specifications.

PRESDWOOD FOR PANELING

MASONITE CORPORATION
Dept. 798, 111 W. Washington St.,
Chicago, Illinois

Masonite

STRUCTURAL INSULATION · INSULATING LATH · PRESDWOOD

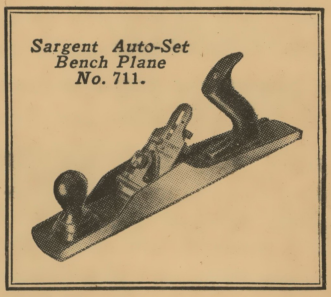
C 1929, M. C.

Constructed according to your specifications

THE new Sargent aluminum framing square is scaled with absolute accuracy for all lengths of common rafters, hip, valley, jack and cripple rafters. Markings are tested and they must stay true in use. All scales can be read easily. The non-rusting surface is treated so that it will not reflect light. These squares weigh only 14 ounces and are easy to use. Sargent standard framing squares are made also in steel.

The Sargent Auto-Set— *the modern bench plane*

The Sargent Auto-Set Bench Plane is made solid throughout. By a new principle of plane construction the cutter, of chromium steel, is held rigidly all the way down to the heel. No matter to what severe use you put it, the Auto-Set will cut smoothly and evenly and without a chatter or waver. Sargent also makes old-style bench planes, all of the usual high standard of Sargent excellence. Write for our free booklets.



Sargent Auto-Set Bench Plane No. 711.

SARGENT

TOOLS AND HARDWARE

SARGENT & COMPANY
55 Water Street, New Haven, Connecticut.
Please send me without cost the booklets on Sargent Planes and Squares.

Name_____

Address_____

AMBLER ASBESTOS "WALTILE"S

WALTILE

is made by the makers of

AMBLER ASBESTOS SHINGLES

which since 1905 have set the standard of excellence in the fire-proof roofing field.

Offers profitable work for Carpenters

AMBLER Asbestos "WALTILE" is made of Asbestos fibre and Portland cement, compressed under tremendous pressure into sheets of uniform thickness (32″ x 48″) weighing 22 pounds each.

By a special process it is given a permanent highly glazed surface, and is available in the following colors: white, cream, smoke, black, pink, Apple green and Nankin blue.

It is applied readily by nailing to studding in new construction, or by cementing to old plaster walls using "WALTILE" Plastic Compound, which we furnish. "WALTILE" is scored 4″ x 4″, 8″ x 8″ or 16″ x 16″, to give a tile effect. Cap moulding, corner strips and base boards are also supplied.

It is stain-proof, fireproof, durable, easy to clean, and much less costly than tinted Ceramic tiling. It meets the vogue for decorative interiors. Dark rooms are made cheery through its use.

National advertising which started in February has brought a host of inquiries, and has created the need for carpenters to apply it.

Here is a chance for you to become the WALTILE expert of your community. Write for prices and full description.

ASBESTOS SHINGLE, SLATE & SHEATHING COMPANY

AMBLER PENNA.

Branches

Boston	Detroit	Pittsburgh
Buffalo	Minneapolis	St. Louis
Chicago	New York	Wilkes-Barre
Cleveland	Philadelphia	Washington

TOOLS *that you are proud to own*

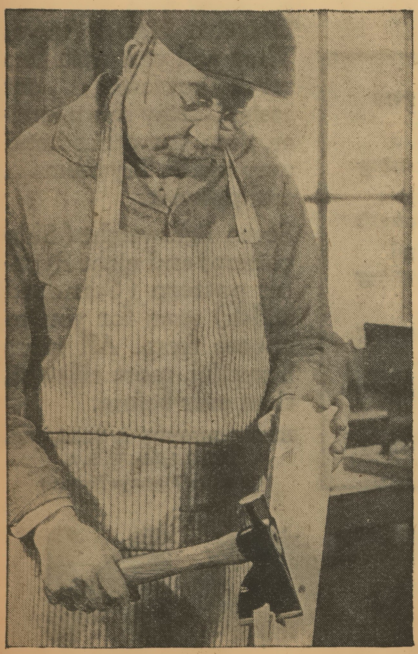
Here is the test of a nail hammer, —drawing a headless nail. The hardened nipper claws of a Plumb will grip and pull the finest headless brad, not once,—but every time. H. F. 81 model, price $1.50.

In the carpenter shop, on the building job,—everywhere, carpenters who demand *the most* of a tool use Plumb.

It takes more than mere tempering and forging and shaping a handle to win their approval.

And Plumb gives more: A tool that is scientifically designed for its particular job; a tool that is balanced till it works like a part of your arm.

Hatchets of specially selected steel, hardened and tempered to hold a *shaving* edge.



The razor-keen edge of a Plumb Hatchet "bites in"; saves your strength; gets work done. No. 2652, $1.60.

Nail hammers that drive a nail accurately or draw the slimmest, headless brad.

Every tool equipped with that exclusive Plumb patent—the Take-Up Wedge which tightens a handle, when it loosens, just by a turn of the screw.

Finished with rust-proof Black Head and soil-proof Red Handle of strength-tested hickory—ready for a lifetime of service.

It is the *extra* value that won leadership for Plumb,—those added touches in a tool that make it a joy to use.

Your hardware merchant is a tool specialist. Ask him to show you Plumb Tools.

FAYETTE R. PLUMB, Inc., Phila., U.S.A.

PLUMB
DOUBLE LIFE
Hammers Hatchets
Files Sledges Axes

You cut *true to the line* with the *thin, yet stiff*, Disston Saws

EVERY one of the Hand Saws in the entirely new Disston line is thin . . . yet stiff.

Each cuts true to the line, cuts faster, runs smoother. The teeth are shaped to take hold better, bite deeper, and retain their keen edges longer.

Disston, always the world's leader, is the first to make hand saws so thin, *yet stiff*. Saws thin, but not limber to make your work easier.

These thinner, lighter blades are made possible only by Disston Steel and Disston True-Taper Grinding. Disston Steel takes a tougher temper, with the proper stiffness, and Disston True-Taper Grinding removes all unnecessary weight. This improved grinding graduates uniformly from the cutting edge to the back and from the handle to the point. The tooth edge is of the same thickness from end to end.

Six Advantages

1—Lighter Blades
—for easier cutting

2—Narrower Blades
—save strength

3—True-Taper Grind
—for faster cutting

4—Thin, yet Stiff
—for true running

5—New Handles
-give better balance

6—Disston Steel
—stays sharp longer

Ask Your Dealer

to show you the new Disston Hand Saws. They will run with less set . . . cut faster . . . cut easier . . . stay sharp longer, than any other hand saws made. Try them . . . and prove it.

Seven lightweight (Ship pattern) and eight Regular pattern (Standard width) saws for you to choose from. All more beautiful, more efficient, than ever before.

HENRY DISSTON & SONS, INC.
Philadelphia, U. S. A.
Canadian Factory: Toronto

DISSTON

"THE SAW MOST CARPENTERS USE"

THE CARPENTER

Entered July 22, 1915, at INDIANAPOLIS, IND., as second class mail matter, under Act of Congress, Aug. 24, 1912

Acceptance for mailing at special rate of postage provided for in Section 1103, act of October 3, 1917, authorized on July 8, 1918

A Monthly Journal for Carpenters, Stair Builders, Machine Wood Workers, Planing Mill Men, and Kindred Industries. Owned and Published by the United Brotherhood of Carpenters and Joiners of America, at

Carpenters' Building, 222 E. Michigan Street, Indianapolis, Indiana

Advertising Department, 25 Third Avenue, New York, N. Y. 51

Established in 1881 | Vol. XLIX—No. 6. | INDIANAPOLIS, JUNE, 1929 | One Dollar Per Year | Ten Cents a Copy

NOTICE

The publishers of "The Carpenter" reserve the right to reject all advertising matter which may be, in their judgment, unfair or objectionable to the membership of the United Brotherhood of Carpenters and Joiners of America.

All contracts for advertising space in "The Carpenter," including those stipulated as non-cancellable, are only accepted subject to the above reserved rights of the publishers.

I Venerate A Carpenter

I venerate a carpenter.
It always seems to me
There is about his ancient trade
An air of sanctity.

The saw is honest and the plane
An honorable tool;
The earnest augur sinks a shaft
Exact and beautiful.

And fair wood and very kind
To answer each request . . .
The one so happy at his tool
Takes songs out of his breast.

The while, his purpose in his hands,
He marks the hammer's beat.
The little eager shavings run
Like tidings down the street.

And it is brighter where he works
For his ecstatic zeal,
The gospel of his good intent—
I always seem to feel

A kind of tender fear for him,
So splendid and so shy . . .
I venerate a carpenter—
God knows why!

—Amanda Benjamin Hall in *The Commonweal.*

MANAGEMENT DISPLACEMENT AND UNEMPLOYMENT

(By William Green, President, American Federation of Labor)

SCIENCE and invention have demonstrated the fact that very little, if anything, material or serviceable in human life remains static. Fluidity, adjustment and readjustment characterize the movement of civilization from one peak of achievement in human progress to a higher and still higher point. There is a constant shifting in usages and customs as science and invention perfect newer and more attractive methods which make for human and social comfort and convenience. Processes and mechanisms which seem to be comparatively new are rendered obsolete through subsequent discoveries, improvements and inventions. Styles and customs change standards of living and modes of transportation and communication change. Instead of clinging tenaciously to that which is old and tried we seek to find that which is new and better adapted to our times.

The changes which have taken place in industry and industrial processes have been so rapid and startling as to challenge our imagination. We cannot adequately appreciate the fact that we of this generation have been associated with an industrial revolution. We become conscious of this fact only when we make comparison of the past with the present, comparing the age of steam with the age of electricity and the needs of primitive existence with the needs of modern life and its minimum requirements.

The introduction of machinery into industry has produced a profound effect upon our economic and social life. It has served to reduce production costs and simultaneously to increase the productivity of working men and women. It has brought about mass production, standardization in output and specialization as a substitute for individual skill and training. Human drudgery has been relieved, social well-being has been advanced. Knowledge has been more widely disseminated. Wider opportunities for the enjoyment of leisure and recreation have been created. Great stimulation has been given to research and study and the requirements of mechanical invention and the standards of human life and living have been brought to a higher level. Spiritual values have been enhanced in correspondence to the enhancement of material values.

Working men and women represented by the American Federation of Labor possess a full sense of appreciation of all the benefits and blessings which have come to the human race through the mechanization of industry. In the early stages of machine introduction and expansion many workers viewed with apprehension the effect which machinery would have upon their opportunities to secure and maintain steady employment. Job security is a matter of grave concern to every wage earner and his family. Life, living, happiness and home depend upon it. Feelings of personal interest led to sporadic opposition, in some localities, to the introduction of machinery. However, the American Federation of Labor never assumed such an attitude. The great mass of working people has come to understand that machinery in industry represents a logical development in human progress and that its further introduction and use is essential to industrial success and to the establishment and maintenance of industrial supremacy.

Because there seems to be a distorted idea prevailing in the minds of some regarding the attitude of the American Federation of Labor with reference to the use of machinery in industry, its officers and representatives have, on numerous occasions, stated that the American labor movement welcomes the installation and extension of the use of machinery in industry. American working men and women have adjusted themselves to this phase of industrial development and are adjusting themselves to the changes which have taken place as machinery has been substituted for hand labor and hand service. In fact, it is this human element in industry which has contributed very greatly to the success of the wide-spread use of industrial machinery.

As compared with the labor movements in many other countries, the American Federation of Labor has taken

a most advanced position in its acceptance of this great industrial change which has come upon us. Although the Organized Labor movements of some of these countries, to which I have referred, have set themselves in opposition to the introduction and use of mechanical processes in industry, because of the widespread unemployment which ensued, the American labor movement has accepted it, has adjusted itself to it and will be found cooperating with management in the extended and efficient use of mechanical technique and mechanical improvement.

Machine production, both in quantity and quality, has been made possible very largely through the efficiency and skill of the workers who operate the machines. From the economic point of view, however, working people insist that they shall share equitably in the benefits which accrue from the introduction and use of machinery. These benefits may be classified as higher wages and enlarged opportunities for the enjoyment of leisure and recreation.

The American Federation of Labor insists that it would be highly unfair and unjust for owners and management to appropriate to themselves all the benefits which come through the use of machinery and power.

Obviously, the efficiency and productivity of working people are increased through the enlarged and extended use of machinery. Common justice demands that the wages of the workers shall increase in acordance with their increasing power of production. In a corresponding way the hours of labor can be reduced so that the great mass of working people may enjoy higher wages, short workdays and shorter work weeks through the introduction and installation of machinery and power.

Turning briefly to a consideration of serious social and economic problems which have grown out of the introduction of machinery and power, we find first and chief among them all the problems of machine displacement. Persons who have served years of apprenticeship and additional years as skilled, trained workers have found the skill and training which they acquired rendered valueless and ineffective. Furthermore, through machine displacement they have been forced into unemployment and to seek new opportunities for service in newer industries where their acquired skill and training is of no value whatsoever. Actors, musicians, artists, telegraph operators, in addition to other skilled workers, have been displaced through the introduction of machinery.

For instance, a power-operated machine used in the manufacture of men's clothing, operated by not more than two persons displaces two hundred skilled clothing cutters.

Up to this time more than three thousand musicians have been displaced through the introduction of movie-tone and mechanical music. Human displacement of the kind and character enumerated is going on constantly as new machines are installed and others already in operation are improved and made more efficient.

How is society going to meet the serious situation which will ultimately be created through the continuation of machine displacement? We are justified in believing that there will be a further expansion of the use of machinery and power and that it is quite impossible for us to appraise the extent to which machinery will be used in mass production and in industry generally. Thus far those who have been displaced through the introduction of machinery have secured employment in the newer industries which have grown up during the last two decades. This process will no doubt continue until we reach the limit of industrial absorption. Assuming that a point will be reached eventually what preparation, if any, shall we make in order to deal with the problem of technological unemployment in a scientific, humane and just way? How can we help skilled and unskilled workers during the period of transition which they are bound to meet when they are thrown out of employment through the operation of machine displacement to the period when they find new employment?

We cannot create an army of unemployed and maintain prosperity. Every worker is a consumer but when workers are suffering from unemployment they cannot purchase and consume. It is, therefore, to the interest of industry that the mass of working people shall be employed so that the purchasing and consuming power of America's greatest market may be established and maintained at a maximum capacity.

It is the opinion of the officers and members of the American Federation of Labor that the question of machine displacement should be considered by governmental authorities and a plan formulated by which substantial aid and assistance can be extended to those who have been displaced by machinery in securing new employment suitable to their qualifications and abilities. An agency could be created by the Federal Government for the purpose of assembling information regarding opportunities for employment, the location and demands of new industries and opportunities for men of special skill and training to secure employment. No private agency could function properly in dealing with a question of this kind. For that reason only the Government could act and could create an agency which would be a clearing house of information for displaced workers.

Further installation of industrial, mechanical equipment is inevitable. No person with vision and understanding would attempt to stop it. I repeat, Labor welcomes it. We would not stop it if we could. While this mechanizing process is continuing the human element in industry must be protected and its interests must be preserved. Machines may produce commodities but they do not consume them. A market must be created and maintained for the use and consumption of the goods and manufactured articles which machine-equipped industry produces if a steady balance is to be maintained between the forces of production and consumption. This can be done by developing the purchasing power of the consuming masses to its maximum capacity.

Every person is a potential consumer but only those who possess a purchasing power are active consumers. The jobless cannot buy. As unemployment increases the opportunities for the sale of manufactured goods decreases. Expanding unemployment means a contracting consuming market. Here is the basis of Labor's concern and anxiety over the problem of technological unemployment caused by machine displacement. We wish to arouse interest in a plan or plans which will serve to cushion wage earners moving from machine displaced positions to other jobs for which they are by training, skill and ability, best suited.

Every person willing and able should be accorded an opportunity to secure employment. There should be no army of unemployed or human scrap heap in America. A jobless class in the cities and towns of the nation constitutes a menace to society. None of these dire consequences will follow the installation of machinery in industry if, while such installation is going on, we see to it that the purchasing and consuming power of all the people is built up and maintained upon a basis corresponding with the productive capacity of industry. This is an objective possible of attainment, noble in purpose and worthy of all human endeavor. If we have the vision and possess the courage and will to achieve we can realize it.

THE CARPENTER'S INCREASING RESPONSIBILITY

(By Hugh K. Taylor, National Lumber Manufacturers' Association)

THE responsibility of the carpenter for the durability and general satisfaction of the structure that he erects is increasing as time progresses and industry progresses with time.

The carpenter, in other words, is something more than "just a carpenter" —a man who, with hammer, saw and some nails, is expected to do nothing more than put together materials assembled for a house, barn or some other structure. His physical labor on the job is only a part of the duty that he is called upon to fulfill. His brain—his knowledge of materials and their uses—is requisitioned quite as much as his muscles when he is employed to build something. His responsibility is considerably more than sawing boards evenly and driving nails "straight and true."

Nor does his responsibility end when the last board is sawed and the last nail driven—for then begins his part of the responsibility for the satisfaction or dissatisfaction which the structure gives its owner, upon which may rest his reputation as a carpenter.

Recognizing his responsibility, the quality of the materials that he puts into a structure is a matter of much con-

cern to the carpenter. He knows that he can't do a good job with poor materials, but frequently finds it difficult to convince a stubborn customer of that fact. The carpenter knows no building material so thoroughly as he knows lumber. He knows its various species and grades, and if he could but impart the essentials of his knowledge of lumber to those for whom he builds their satisfaction would be increased, his responsibility would be lessened and the scope of his reputation as a good carpenter enlarged.

A method of imparting practical knowledge of lumber and its uses to the public is being put into effect by the leading lumber manufacturers of all regions and species through their national organization—the National Lumber Manufacturers' Association. That method does not attempt to impart to the public the technical knowledge of lumber that the carpenter possesses. Its purpose is (1) to free the public mind of the age-old belief that "lumber is just lumber;" (2) to supplement that belief or opinion with the fact that there is a grade of lumber for every building purpose; (3) to impress the fact upon the public mind that there is no better all-purpose building material than lumber of various grades, and (4) that lumber can now be bought and used with the same degree of confidence with which one buys any other product of recognized quality.

If that is accomplished through the method being put into effect by dependable lumber manufacturers all over the United States, through their National Association, it is reasonable to assume that the carpenters of this country will be benefitted accordingly. Those benefits should be and doubtless are so obvious to them as to need no explanation.

The method being employed by lumber manufacturers to accomplish the results previously mentioned is the grade marking and trade marking of lumber made in conformity with American Lumber Standards. Carpenters know those Standards as well as they know lumber grades and sizes. Without marking, however, they are not always sure of getting the grades they want, the ones best adapted to specific uses and which they can confidently recommend to those for whom they are building. Grade and trade-marking of lumber removes all doubts upon those points; prevents needless arguments with dealers and customers, and gives assurance of quality in construction.

Further assurance of the quality of lumber grade and trade-marked by the great Regional Lumber Manufacturers' Associations is given by the appearance with those marks of the National-Tree Symbol. This Symbol, in the form of a little tree with the letter "N" in its top, financially guarantees the correctness of the Regional Association marks to the lumber dealer, who in turn can extend the guaranty to the consumer. The carpenter can use it with assurance that the structure which he builds will give full satisfaction to its owner if he employs ordinary skill in its use. Unmarked American Standard Lumber will continue to be obtainable, but the National-Tree Symbol will be the best evidence of the wisdom of his selection of lumber for various purposes that the carpenter can find.

THE UNION LABEL

(By John J. Manning, Secretary-Treasurer, Union Label Trades Department, American Federation of Labor)

THE question has often arisen in my mind as to why all classes of employers fraternize with workers in all kinds of societies or associations on an equal footing, but when these same workers join a labor organization they are immediately classified as undesirables.

The answer to this question is that nothing is so stubbornly resisted as an attempt to organize into effective trade unions, yet it is the organized workers that mean so much to industrial stability and prosperity.

Unless labor is powerful enough to be respected, the workers are doomed to toil under unfair and unjust conditions. Without unions industrial democracy, as intepreted by the trade agreement, is impossible. And without democracy in industry, and that is where it counts the most, there is no such thing as complete democracy in America.

Only through the trade union can the wage earner have a voice in determining conditions of labor and obtain the discipline needed for self-government. Those who are opposing the unions may think they are fighting its alleged errors, but what they really are fighting against is democracy in industry.

In their desire to crush and eliminate the trade unions from industry, they forget that the business they are so zealously defending is wholly dependent upon the purchase and consuming power of the workers. Low wages and long days or weeks of labor, usually found in unorganized industries, are not conducive of progress, prosperity, education or social betterment.

Show me a community where active, virile trade unions do not exist, and there I will show you the major portion of the population without education, ambition or hope for the better things of life. Where trade unions are strong, well officered and intelligently directed, you will find progress, prosperity and community welfare at the highest possible standard.

Practically every advance made by the workers has been pioneered by the trade unions. Free schools and text books, better homes, protective factory laws, elimination of child labor, equal pay for equal work by women in industry, compensation for injury or death, health and sanitary laws, are all directly traceable to trade union activity.

The organized workers is the only group in our country that helps all other groups when they make advances. If it is higher wages or a shorter work week, the manuafcturer and the retailer benefit by increased purchase power of the workers. Even the non-unionists gets a relative increase or improvement in his conditions without any effort on his part.

At a very low estimate, the Organized Labor forces of our country have a purchasing power of five billions of dollars annually. If perchance a twenty percent country-wide reduction in the wages of these workers could be effected by those who are hostile to us, it would simply mean a contraction of purchase power of one billion dollars.

With this contraction of purchase power, it would also mean bank failures, closing down of factories and retail stores, and worse than all of these, untold physical suffering of the vast army of the unemployed.

This unemployment condition would lead to the keenest possible competition for the jobs still left, with further reductions of wages to add to the already abnormal condition and further stagnation of business.

The only deduction to be made from this short-sighted policy is to recognize that the Labor Movement is here to stay and that it is a stabilizer of business, progress and prosperity.

The two husky children of the Trade Union Movement, the Trade Agreement and the Union Label, should receive the hearty cooperation and support of all fair minded citizens. The Trade Agreement stands for peace, justice and fair dealing in industry while the Union Label attached to any article, is a guarantee that it was produced in America, under our boasted American standard of living, as America is the only country in the world where the Union Label is the hallmark of industrial democracy.

Those who believe in the great American principle of fair play, whether they belong to a Labor Union or not, should use their power of purchase to strengthen the hands of the organized workers in the great struggle they are making to bring about a better day for all who toil. Use your American dollars to purchase American made goods bearing the Union Label. By doing this you will be giving a rebuke to the exploiter of child, sweatshop and convict labor and encouraging real American employers to continue their friendly relations with the organized toilers.

The progress, happiness and social advancement of the toilers depend upon their right and power of organization. Any hope for future improvement in the condition of the workers rests upon the loyalty of the whole Labor Movement and the intelligent cooperation of the purchasing public. Labor's powers and energies are directed and must be continued towards the unification and solidarity of the workers. The cry for democracy in industry, for better wages, shorter work days or weeks, must not be a voice in the wilderness, asking for peace and justice, and receiving abuse, vilification and injustice, tyranny and oppression.

It must be recognized that the Labor Movement as represented by the Ameri-

can Federation of Labor is a force for good and until injustice and inhumanity are driven from the industrial field, and the rights of those least able to defend themselves have been established for all time, in this fair land of ours, which has been dedicated to democracy, our work must be carried on.

Like our predecessors in this great humanitarian movement, while seeking to solve the immediate problems with which we are confronted, we always have in mind the welfare of the generations to come. The child of today is the man of tomorrow and if parents are forced to live under conditions which prevent the normal and healthy development of these children, we cannot hope that the coming generations will be an improvement on ours. This thought and idea is best expressed in a poem entitled:

Trade Union Philosophy

An old man going a lone highway
Came at the evening, cold and gray
To a chasm vast and deep and wide.
The old man crossed at twilight dim—
The sullen stream had no fear for him.
But he turned when safe on the other side,
And built a bridge to stem the tide.
"Old Man," said a fellow pilgrim near,
"You are wasting your time with building here.
Your journey will end with the closing day.
You have crossed the chasm deep and wide
You never again will pass this way—
Why build you this bridge at evening tide?"
The builder lifted his old grey head,
"Good friend in the way I have come," he said,
"There followeth after me today
A youth, whose feet must pass this way.
This stream that has been as naught to me
To the fair-haired youth might a pitfall be
He, too, must cross in the twilight dim,
Good friend, I am building the bridge for him."

HOUSES IN ABYSSINIA

Where Change Is Not Encouraged—Earthen Floors Tiles as Interior Decoration

(By George Cecil)

CIRCULAR HUTS

FROM the European standpoint of civilization the Abyssinian house is a most uncomfortable, and horribly insanitary, habitation. It has, however, served the Abyssinian very well for countless decades, while the circular huts (in which the poorer class lives) are preferred by their owners to the more pretentious edifices of the wealthy agriculturists and other well-to-do persons. In Abyssinia the natives are more or less contented with what they have, a form of philosophy which may be commended to most Western people.

Unchanging habits, customs, and tastes, also have something to do with the state of affairs architectural.

Champion Thatchers

The circular house, though built of stone, is a very rough and ready affair, while it is thatched with rushes. The thatching is carried out with considerable skill, the roof invariably being rainproof, ropes and rushes, or straw, keeping the thatch in its place. The rains, by the way, are very heavy; and at certain seasons scarcely a day passes that the roof is not put to a severe test. Sometimes the circular house is constructed of posts and straw, a thick hedge surrounding it, the inner wall being plastered with a mixture of mud and chopped straw. Chimneys are not considered necessary, and at night a few puppies, kids, and other obnoxious pets are allowed to mingle their snores with those of the family. The dreadful atmosphere beggars description.

There are rectangular, square, and oblong houses, the last-named consisting of two parallel walls, the ends of which meet in a semi-circle. These, too, are thatched; but the two-storied, flat-roofed variety does not furnish employment for the thatcher. Sometimes the owner

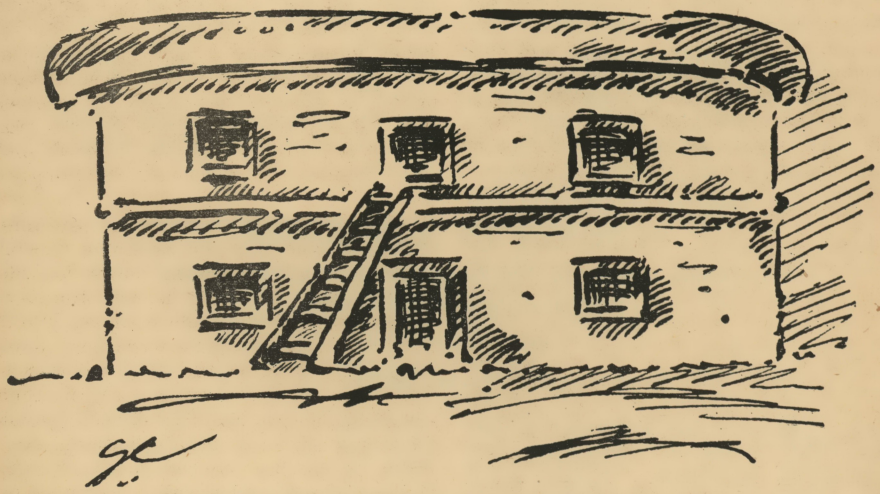
of a two-story house, finding the accommodation insufficient for the needs of his ever-increasing family, adds a story. The Abyssinians are, it may be noted, a patriarchal race, large families being encouraged. The sons and daughters, however, are utilized by the head of the establishment to look after the flocks and to till the land, taking the place of laborers, in fact. And those who shirk their duties do not care to make the attempt a second time, for the Abyssinian parent, having sound ideas upon the subject of filial obedience, does not scruple to chastise his progeny into a state of more or less cheerful submission. "Obey or be beaten" is the principle upon which slackers go about their work.

walls dividing the four rooms support the roof, and upon them are hung firearms, clothing, cooking utensils, and so forth, there being scarcely any receptacles. Indeed, tools, beds and tables are all that the Abyssinian allows himself in the way of furniture, and of these there are but few.

The floors (of earth beaten very hard) are raised; the glassless windows have shutters; and rushes—which harbor myriads of fleas and bugs—serve as carpets and rugs.

Low Ceilings and Outside Staircases

Lofty rooms are not favored by the Abyssinians, eight feet being the most to which they aspire, while in the rooms



The double story flat-roofed house, with curved extremities

Thus do they save their skins.

Clay In Place Of Mortar

He who can afford it builds himself several circular houses, the erections being surrounded by a stone wall, while a proportion of the space is devoted to an enclosure for the cattle, and a garden. There also is a shed with a raised floor of beaten earth, upon which the grain is prepared for cooking, while the women of the establishment congregate there in the intervals of performing the household duties. Some of these houses are as much as forty feet in diameter, being furnished with two doors and several windows. Clay takes the place of mortar; but it is so well kneaded that there is seldom any sign of a draught. The

of the upper story a person of good height can hardly stand upright. The two floors are connected by an outside staircase, which terminates in a small terrace and a door. A raised divan of beaten earth runs round the room, and on it the younger sleepers spread their mats of dirty sheep's wool, all available space on the floor being taken up, seniores priores by the beds of the elders. A wealthy Abyssinian, however, aims at a certain amount of comfort by allotting several houses to his family and dependents. The rafters and tiles are decorated with colored cloth; Persian carpets cover the floor; the window-openings, extending to the height of the room, let in a fair supply of that very desirable thing, fresh air. 'Tis needed.

Dug-Outs

In contrast to these houses are the "dug-outs" to be met with in certain parts of Abyssinia. A hole, six or eight feet by five, is dug in the ground, being encircled by a wall of sun-baked bricks, to which a thatched roof is added. The floor is beaten hard, and it forms the resting-place of the whole family, who manage to survive a total lack of ventilation.

Sometimes the builder finishes off his work by crowning the apex of the roof with a piece of native pottery; and in rare instances a few tiles are let into the inner walls. But, as a rule, even the simplest attempt at decoration is discouraged.

THE TIME-KEEPER

(By H. H. Siegele)

EVERY large concern, where there are many persons employed, is equipped with a modern time-clock. This time-clock, as we choose to call it, is usually located at a very conspicuous place, and the employes on coming to their place of employment, immediately go to this clock and register their coming; and in much the same manner, when leaving, they again visit this clock and register their going. In this way the time of every employe is kept on record up to the fraction of a minute, and the management, at any time, can look over the record of any or all of its employes, whenever it chooses to do so. Whether or not these modern time-clocks have been employed by any of our large construction companies, we do not know, but we are sure that their use, if they are being used, in this particular field of industry, is very limited. However, the time will never come when the building industry will have no use for the time-keeper.

The time-keeper, more than anyone else, learns to know every person employed on the job; because he must keep a record of the names of the employes, as well as the amount of time they work. Not all jobs have an official time-keeper, but every job has someone who keeps the time, and whoever keeps the time is acting in the capacity of time-keeper. On the smaller jobs the foreman is often also the time-keeper. Sometimes, too, the superintendent or the contractor himself does this work; usually on residences, and on the smaller jobs of heavy construction. But the time-keeper we are idealizing in this story, is the one, who book in hand, goes over the job at regular intervals making note of the presence or absence of those whose names he finds on the pay-roll; and when a new man comes to work, enters his name on the book.

A workman's time is his greatest asset, and the man who robs him of that, is as guilty of stealing as the man who robs a bank or a grocery store. On the other hand, when a man works for an employer, he should give honest service-value for the compensation he receives. That there are two sides to this time question, can not be denied, and we shall give instances, in order, to illustrate both sides.

That old hold-over from the pre-union times, of expecting the workman to work before and after working hours, in order to give good measure, is still found on some jobs in these modern times. We do not mean by this that a workman should drop everything at the very moment he hears the whistle blow, not at all; there are usually some little things that should be taken care of before leaving one's work, but what we do mean is, that working from ten to thirty minutes before and after regular working hours, and doing it regularly, that a man coming to work a few minutes before working hours will be considered late; or, if perchance, he should leave the job immediately after the whistle blows, it will be looked upon as quitting before quitting time. These cases are not as prevalent as they used to be, but nevertheless, they still exist, and should be blotted out as soon as possible. We give an instance of this, which came to us from a reliable source: A contractor, in order to work this stunt, hired one of his men as a sort of a "pace maker." This man received extra pay, with the understanding that he was to start to work with a "Whoop! Hoo-rah! . . . Come on boys!" spirit, about a half hour before time to go to work. And when the time came to

quit, the work was to be so interesting to him that, when the whistle blew he forgot all about it, or didn't hear it at all . . . The stunt worked, too, because he was looked upon as a sort of an unofficial straw-boss. Afterwards he boasted, that the rest of the gang were so "scared of their jobs," that none would lay down his tools, before he himself did. . . . And then he laughed, mockingly. We could give other similar instances, but the point has been brought out, and so we will pass on to the other side.

"Soldiering" on the job, or using another common expression "laying down" on the job, will probably be practiced as long as there are jobs on which men are employed. But the employer has a remedy for this, by taking such men off the pay-roll. Yet, in order to be fair, he must first learn definitely who those fellows are, so as not to discharge an innocent man. The wide-awake foreman together with the superintendent, can usually remedy such a situation. Cases of "hiding out" on the job, for shorter or longer periods of time, are not uncommon. Stories came to us, during the building of the cantonments, when out country was engaged in the World War, that perhaps seldom take place in times of peace. Fellows would "check out" in the morning, "hide out" through the day and "check in" in the evening, and at the end of the week they drew a week's wages, having done but little, if any, work during the whole week. Another story that came to us was to the effect that some fellows used, besides their own names several assumed names: "Checked out" at different lines under different names, and "checked in" in the evening in the same way, thus when the week was up they drew, not only one, but several pay envelopes. Whether or not these stories were entirely true, we, of course, do not know; but they are plausible, viewing them in the light of war-time conditions. However, we are using them here, simply as illustrations, in order to show how valuable, in many instances, is the service of a time-keeper.

Many carpenters, and we think it is a good practice, keep a record of every hour's time they put in, and in this way they are able to tell at any time, whether or not the time-keeper has kept their time correctly. Besides, they know exactly how much time they have worked, not only for the last year, but for years past. These men, while they are mechanics, are at the same time, individual time-keepers.

SOUTHERN MILL HANDS NEW TO INDUSTRY PAID LOW WAGES

(By N. C. W. C. Dept. of Social Action)

BACK of the new labor troubles in the southern textiles mills, which have been marked by strikes of the unorganized, attempts at organization and indictments for kidnapping labor officials, is a story of low wages, long hours and fast machine work among a people new to industrial life and fresh from the typical early American farm of the hills.

The Federal Bureau of Labor Statistics gave the bare facts of the hours they work and the wage they get in its study of cotton mills last year. The figures are similar to those in the rayon mills in which a part of the trouble has taken place.

In Alabama they worked an average of over nine hours a day. The men made an average of $14.58 a week and the women $11.88. In Georgia they worked a little longer and they made an average of around a dollar a week more.

In North Carolina they worked a few minutes less a day than in Georgia and made about a dollar and half more a week. In South Carolina their hours were still a little more than nine hours a day and their average was $15.46 for men and $12.32 for women,—more than in Alabama but a little less than in Georgia or in North Carolina.

A nine hour day, an average wage of men by states from something less than $15.00 a week to something less than $18.00, and an average wage of women by states from something less than $12.00 a week to something less than $15.00 are the main lines of this part of their working life.

The southern mill hands are native southerners come from the farms in the hills and the brush to enter the mills and

live in the mill villages. They are old-time Americans and they have lived for a century in the backwaters of American life. With the industrialization of the South they have left their clearings and patches and have gone to work in the factories.

On their farms they had grown nearly everything they needed; a small money crop had given them the chance to buy a few things from the store. They handled little money in the course of a year and what they had was precious beyond its usual worth.

Wages week by week attracted them. City life drew many. They left the farm with all the primitive American virtues and faults, creatures of the eighteenth and early nineteenth century American mountain and hill frontier, independent, patient under difficulties and fiery when aroused. They entered a new kind of life to live in town on more money than they had ever before dreamed of handling but not with much more food and certainly with less elbow room, less independence and with more of some comforts and fewer of others.

When before they worked long hours in spells out in the open air and then had time to loaf, now they work an average of nine hours a day steadily every day in heated lint-breathing air. In recent years and months the new machines and the efficiency experts have set them to faster, harder tasks.

They were unorganized and on their farms in the hills they had had little experience with organizing. They have themselves resisted organizing and the mill owners and local business men have played upon their perjudices to keep them from listening to the organizers who came among them. In the last couple of years a new tack has been taken though with little success. Recent events may tell of a change.

THE NEW "DEAD-LINE"

(By Matthew Woll, Vice-President, American Federation of Labor)

INCREASING attention has recently been focused upon the growing tendency among employers not to employ workmen above the age of forty. This new "dead-line" of employment has been developing very rapidly during the past few years. In a number of industries when the working force is reduced the men above forty years of age are usually let out and never taken back. When more workers are needed younger men receive first consideration. Thus the unemployment problem is accentuated and extended to include men still in their prime.

This discrimination is being supplemented by compulsory physical examinations and tests and only those of exceptional physical condition and aptitude are given the right of way. The process of elimination and selection does not end there. It applies likewise against workmen with larger families. If a man who has four children seeks employment he is denied employment because of the "risk" involved. Should he be killed during his employment the insurance carrier will have more to pay than in the case of a single man.

In some industrial communities these restrictive and selective employment policies have developed to really serious proportions. They are wholly anti-social in character. They unfairly and unjustly throw the burden of care of these older and less physically capable men upon industries not following these practices and upon the community as a whole.

Those engaged in following this employment policy undoubtedly present what they believe to be a plausible answer. Yet the fact remains that this restrictive employment practice is founded almost, if not entirely, upon the selfish desire to exploit man power exclusively at its greatest efficiency, secure lower rates for compensation and group life, sick and accident insurance, and at the same time enlarge the employers' control over workmen.

The development of a "dead-line" at forty years of age is not confined to private employment. It extends into national, state, and municipal employment. This discrimination is being practiced in public employment against mature workers through civil service rules. This development calls for a new revaluation and reconstruction of our civil service

rules if governments are to end the game of robbing Peter to pay Paul.

While these selective and restrictive employment policies are making more difficult of solution the unemployment problems, and are adding heavy burdens and uncertainties to the life of the wage earners in their advancing years it is seriously questioned if industry really gains by such inhumane practices. After all, a man at forty is in many cases the most desirable type of workman. His larger experience and training add to his value as a worker and family responsibilities assumed make him a more steady worker.

Employer insurance, sick benefits, and retirement allowances all tend to make it of immediate profit to employers to weed out the older workers. However, what industry may thus profit in the immediate reduction of paternalistic costs is ultimately more than set off by a gradual reduction in production results and added costs to meet the new requirements of the people of the state made necessary by such anti-social practices. It must be apparent that if the development of social insurance is permitted to create a distinctly anti-social phenomena as one of its leading by-products that industry will be required by the state and through the state to provide for the care and attention of those it has forced to the scrap-heap and whom it will not provide for in any other way.

The situation thus being developed is one not alone of grave concern to the workers and to the communities in which they live. It is a subject of increasing importance to industry itself, and unless righted will ultimately come to plague industry.

If we are to continue as a nation wherein all shall have equal opportunity to life, liberty, and pursuit of happiness then every man must have an equal chance and no law, system or procedure should permit a discrimination so unjust and unfair as is embraced in the restrictive and selective employment policies now being pursued in some industries and ever widening in scope and character.

HISTORIC FLORIDA

THE 110th anniversary of the purchase of Florida from Spain for $5,000,000 was a significant event in Florida, February 22nd.

On that date 110 years ago John Quincy Adams, then Secretary of State under President James Madison, received a distinguished caller at his office—Luis de Onis, minister plenipotentiary from Spain. During the course of their conversation, which followed long drawn out negotiations, they signed the treaty whereby Spain ceded the district of Florida, which then included parts of Georgia and Alabama.

For two centuries prior to the purchase, Florida's history was replete with romance and bravery. No state in the Union had been more sought for nor fought over. Its parent flag was changed ten times. The territory belonged to Spain, to France, Great Britain, the Confederacy and last to the United States.

Its known history dates back beyond that of any other part of the continent. In 1497 Sebastian Cabot reported sailing along its shores, but did not attempt to found a settlement, according to historians. Juan Ponce de Leon landed first in 1513 seeking the Fountain of Youth near St. Augustine. He returned in 1521 with plans for development but was wounded by Indians and died soon afterward in Cuba. Panfilo de Narvaez landed first on the west coast near Tampa, 1527, but died there. Hernando de Soto landed near Pensacola in 1539 and met death near the Mississippi river.

Then came a succession of explorers who placed colonies at various places with various success. The list includes many illustrious names—Jean Ribault, the Hugenot, Sir Francis Drake, English mariner; Pedro Mendez, Spanish explorer; De Luna y Arellano, the Mexican; De Gourges, De Laudonniere, French patriots and others.

War between themselves and with the Indians kept the invaders under arms for two centuries before this country bought the state and the dream of peaceful colonization was shattered by the Seminole wars and the war between the states. It was not until 1880 when Gov. William D. Bloxham sold a vast tract of land in South Florida for 25 cents an acre that any real development was accomplished.

WORKMEN'S COMPENSATION LAWS

The Need for More Equitable and Regularly Adopted Compensation

(By John Gray, L. U. No. 2163, New York, N. Y.)

ALL laws that may be passed are not always just and righteous, nor does the form of the law always sanction and justify any act that causes suffering without good reason. Laws should be founded on justice and operated humanely. The duty of a government is to promote equality and secure adequate provisions for penalty when injury is occasioned by the willful misconduct of either an employer or an employe.

Six State Workmen's Compensation laws, representing 20 percent of the population of the country, provide that no compensation shall be allowed for injury or death due to an employe's misconduct or negligence. If an employe is injured by reason of the willful misconduct or negligence of an employer or his managing representative, such employer shall be liable for compensation, and the amount of compensation is increased in three of the group of six laws, viz., California, Kentucky, Massachusetts, Missouri, New Hampshire, Ohio, varying from 15 to 100 percent.

Willful negligence on the part of the employe is stressed in 32 workmen's compensation laws, representing 50 percent of the population of the country, specifically providing that no compensation shall be allowed for the injury or death due to an employe's willful misconduct or negligence; and no provisions have been specifically made to secure compensation when the injury has been occasioned by the misconduct or negligence of the employer or his agent.

Under such conditions just and adequate compensation for injured workers manifestly cannot uniformly be attained. The State of New York is one of the group of 32 laws in which no penalty for willful misconduct of an employer obtains, while by reason of the willful misconduct of an employer the Massachusetts law provides for double compensation.

The methods of promptly obtaining justice must be adapted to the needs of the present day.

INDUSTRIAL BLINDNESS

(By Lewis H. Carris, Director, National Society for the Prevention of Blindness)

THOUSANDS of cases of seriously defective vision among working men and women could be prevented by remedying faulty illumination in industry and thus avoiding the consequent eye strain to workers. Thousands of industrial accidents also could be prevented by better lighting in the plant. It is obvious that no person can do his work efficiently unless he can see what he is doing, clearly and comfortably; yet this fundamental principle of industrial hygiene and business efficiency is violated in thousands of factories and offices every day. As a result, the worker suffers from eye strain or from one or more of the many disorders which have their root in eye strain, and industry suffers from decreased production, increased spoilage and errors, increased personal injuries and compensation costs, and lowered plant morale.

The proper lighting of factories and other work places, however, is really more important from the humanitarian standpoint of conservation of vision and prevention of blindness than from the purely economic point of view. Although many corporations spend large sums of money in safety work and thus contribute toward the campaign for the prevention of blindness through prevention of accidents generally, yet insufficient attention is given by business men to the problems of illumination on which depend the existence or the absence of constant eye strain.

The growth of industry in general and particularly the development of new types of machinery and its application to ever increasing numbers of processes increase continually the number of eye accident hazards to be guarded against; these hazards are decreased to a considerable extent by proper and sufficient illumination. Modern methods of mass

production with their emphasis on speed often require continuous eye strain for hours. This eye strain, continued over considerable periods of time, may result in a permanent impairment of vision with the inevitable consequences of increased accident hazard and deterioration of the quality of the product. Then, too, the twenty-four hour plant is becoming more and more common. This means that two out of three eight hour shifts must work most of the time with artificial lighting.

This high pressure of modern industry requires closer attention to the health of the worker, especially the condition of his eyes. The employe who trys to do accurate work under poor light suffers from nervous and muscular fatigue because of constant eye strain, and such fatigue is a great predisposing cause of many diseases. Four of the twelve great cranial nerves are devoted to sight, and the bad effect upon the whole human mental and physical machine which may result from continued irritation of these nerves may be readily appreciated.

Unfortunately, eyestrain causes no direct pain until it becomes severe. You must take your warning from other things—headache, backache, indigestion, dizziness and so forth—things which people do not naturally associate with their eyes. And that, probably, is the reason why so many people let their eye trouble go into serious stages before they do anything about it. If a cut finger didn't bleed or hurt, most people would let it go till it began to stiffen with infection before they would take care of it, because they consider pain adequate warning, and cuts usually get well by themselves.

If one were to say to the average employer today, "One out of every two employes in your shops, offices, and stores cannot see clearly what he is doing," the employer would be astounded, or he would simply refuse to believe the statement unless it were supported by the records of examinations by physicians or oculists. And yet this statement is not only true, but extremely conservative, except for the comparatively few establishments in which the eyes of every employe have been examined and those of subnormal vision corrected by the use of glasses or by medical or surgical treatment. Some of the larger and more progressive industries have in recent years begun to examine the eyes of all employes and of all applicants for employment.

The close connection between proper or improper illumination in a plant—or in an entire industry—and the eye sight of its employes can be observed, for instance, in the garment trades of New York City. An examination of the eyes of 10,000 garment workers disclosed that approximately 75 percent of them suffer from defective vision. This seems like an unusually large percentage, but the reason is made clear by investigation of lighting conditions in the 6,000 garment workshops in New York City. After such an investigation it was estimated that not more than 10 percent of these shops had adequate daylight in their working quarters. In justice to the employers, however, it should be pointed out that part of the blame was due to faulty building construction.

Insufficient or inefficient light is common in a great many other trades as well. In many shops the natural light is cut down one quarter simply because the windows are not washed regularly. It would be fortunate for mankind if all work could be done under adequate daylight illumination, the ideal light for the eyes, and every effort should be made to use daylight for as much of the time as possible. In addition to large window areas, equipped with awnings or shades, skylights should be provided wherever feasible. These window spaces should be washed regularly. Where artificial illumination is used, responsibility for renewing electric bulbs when they are needed should be fixed upon a specific individual in the plant.

While it is true that a scientific measurement of light and the determination of proper installations can finally be made only by the illuminating engineer, nevertheless in practice much of the illuminating equipment of our factories, mills and other work places is installed and maintained without such supervision.

The application of common sense will make it possible for any factory executive to discover for himself many of the faults of the lighting system in his plants, where such exist. A survey of the natural and artificial lighting of any place of work should take into account the following factors: arrangement of

windows and skylights for maximum natural light; arrangements of desks, machines, and work benches so that employes do not face windows; avoidance of shadows, especially at the operating points of machines; selection of a lighting system and equipment requiring a minimum of local lights; illumination for out-of-the-way corners where valves, switches, stairs, etc., are located; and facilities for cleaning lights and reflectors with a minimum of inconvenience or accident hazard.

It is possible for the layman to measure accurately the amount of illumination which exists in any given work conditions by the use of the foot-candle meter, a simple moderately priced instrument designed for practical use where a large photo-meter and trained operator are not available. The simple directions which accompany the instrument enable the operator with a little practice to measure foot-candles accurately enough for most practical purposes. In many cities a foot-candle meter may be borrowed for a day or two from the local gas or electric lighting company. It is wise policy in any industrial establishment of reasonable size to obtain one of these instruments and to train someone to check up at regular intervals on the actual efficiency of the lighting system in use in various workrooms.

JUBILEE OR MEMORIAL

THE Washington State Labor News published in Seattle, Wash., in its issue of May 10th, 1929 under the above caption says:

"Last month the communist international celebrated its 10th anniversary. The communist press in Russia and leaders of the communist international related their great accomplishments during its existence and the splendid chances for a world revolution in the near future.

"When the Bolsheviki captured the government in Russia in November 1917, the apostle of communism, Nikolai Lenin, prophesied a world revolution within six months. Later on, Zinoviev, the then chairman of the communist international, postponed the revolution for three years longer. Last year, Bucharin, another leader of the party, made a further postponement of the world revolution for a few decades. Now at the tenth anniversary celebration the communist leaders were proclaiming that capitalism is comparatively stronger.

"The truth of the matter is that during the last 10 years the "World Revolution" suffered one defeat after another. In the year 1919 the first revolutionary General Strike in France, called by the communists was defeated. In 1922, the Onward March organized by the communists to march to Ruhr in Germany was a miserable failure. In 1923 the attempted communists uprising in Germany met with defeat. The same fate was shared by the uprisings in Poland and Esthonia.

"Whenever and wherever the communists agitators were considered of a serious nature it was not only repressed, but it was met with a dictatorship and the loss of all the liberties previously enjoyed. Witness the establishment of dictators in Hungary, Italy, Spain and Bulgaria.

"We are now witnessing the dissolving process of the communist international all over Europe. One of the chief heroes of the revolution, the right hand of Lenin and one of the founders of the communist third international, Leon Trotsky, is now calling upon the faithful to organize a fourth international to combat the third.

"Millions of dollars were spent by Moscow to help the Nationalists in Turkey and in China, but with what results. The jails of Turkey are filled with communists and we can still remember the recent wholesale executions in China.

"There is only one accomplishment to the credit of the communists, if credit that be. They have succeeded in demoralizing and weakening a number of trade unions both in Europe and here, but even these questionable victories are disappearing and the workers are no longer paying any attention to the paid emissaries of the third communist international.

"Not an anniversary celebration, but rather a memorial service should be held by the communist party."

IF THE FLAG COULD SPEAK

(By Selden Carlyle Adams, National Education Association)

BENEATH my folds soldiers have fought in defense of their passion for liberty, and under the inspiration of my symbolism statesmen have built a Republic dedicated to the ideal of the sovereign rights of free citizens. I have seen the growth of a model system of public schools seeking to offer a fair start in life to every boy and girl. I have encouraged the scientist in his search for truth, the merchant in his contribution to human wealth, and the laborer in his toil to provide for human comfort. For a century and a half the sons and daughters of Europe and Asia have looked upon me as the emblem of hope and opportunity.

But with all that glorious history there are moments when the breezes cease to blow and I must droop in shame at the knowledge that in the great land I represent, the bodies and spirits of little children are being broken in mines, factories, and mills; that corruption has found its way even into the municipal halls of my great cities; that in the hearts of some citizens sheltered by me there abides a spirit of hate for fellowmen; that I have not been permitted to play a part of larger usefulness in the work of benefitting all mankind regardless of nation, creed, or color.

What of my future? It rests with my sovereign citizens, and in them have I placed my trust that the day may come when I shall wave over a million schoolhouses all providing equal opportunities for the guided growth of childhood; over federal institutions in which there will abide a genuine concern for the safety and prosperity of the whole world; over factories where the rights of mankind will be upheld; over halls of business dedicated to unselfishness; and over Churches truly consecrated to the loftiest ideals of Christian brotherhood!

IN FREEDOM'S NAME

WILLIAM ALLEN WHITE, editor of the Emporia Gazette, Kansas wrote the following editorial when Governor Allen of Kansas, a friend of White, was trying to put White in jail because White, in his paper, had expressed sympathy with striking railway shopmen.

"TO AN ANXIOUS FRIEND"

"You tell me that law is above freedom of utterance, and I reply that you can have no wise laws nor free enforcement of wise laws unless there is freedom of expression of the wisdom of the people—and, alas, their folly with it. But if there is freedom, folly will die of its own poison and the wisdom will survive. That is the history of the race. It is the proof of man's kinship with God.

"You say that freedom of utterance is not for time of stress, and I reply with the sad truth that only in times of stress is freedom of utterance in danger. No one questions it in calm days, because it is not needed. And the reverse is true also.

"Only when free utterance is suppressed is it needed, and when it is needed it is most vital to justice. Peace is good. But if you are interested in peace through force and without free discussion —that is to say, free utterance decently and in order—your interest in justice is slight.

"And peace without justice is tyranny, no matter how you may sugar coat it with expediency. This state today is in more danger from suppression than from violence, because in the end suppression leads to violence; indeed, is the child of suppression. Whoever pleads for justice helps to keep the peace, and whoever tramples upon the plea for justice, temperately made in the name of peace, only outrages peace and kills something fine in the heart of man which God put there when He got our manhood. When that is killed, brute meets brute on each side of the line.

"So, dear friend, put fear out of your heart. This nation will survive, this state will prosper, the orderly business of life will go forward if only men can speak in whatever way given them to utter what their hearts hold—by voice, by postal card, by letter, or by press. Reason never has failed men. Only force and repression have made the wrecks in the world."

Home Notes, Lakeland, Fla.

(*By* Old Hickory)

DESTINY is a peculiar thing. It works in such peculiar ways. If anyone had told me ten years ago that President Hutcheson would appoint me as the official scribe for the Home Pages in the Carpenter, I would have laughed and said, "You are crazy, I will never have to go to that Home." First, because I was against the proposition, and secondly, I did not think I would have to. Anyhow, here I am, a guest, and the only thing I asked in accepting this honor was the freedom of my thoughts and pen and the privilege of assuming a nom de plume, all of which the General President readily granted, so with readers' indulgence, I will ramble along from time to time, describing in my humble way things of interest as I see them in Lakeland, as well as the incidents surrounding our daily lives in the Home.

From conversations with my Buddies, I found the circumstances surrounding their coming here were very much the same as mine, so I see no reason why I should not tell my own story rather than use theirs. Eight years ago, I awoke to the fact that I was on my way down the other side of the Hill, my partner fell sick and the Good Lord saw fit to take her away, "May she ever rest in Peace." The succeeding years made it hard for me, my family drifted apart and at last I found myself alone. I have no English at my command to describe what **alone** means to a Union man over sixty years of age. Work was hard to get and when I did land a job I only lasted a few days, and in some instances, only a few hours. Last fall, for the first time in my life, the landlady knocked at my door and I had to stall her off, as I did not have the money to pay my room rent. I had always been independent and I can't describe the feelings that incident left in me. After much thought, I walked to the District office and asked all kinds of questions about this Home, some were answered to my satisfaction while others could not be answered, but our Secretary said, "Hutch is a big fellow and you can bet he will have things right down there," and then he said—"you have been a good Union man for thirty-two years and you are over sixty-five years of age, so why don't you go up to the Local Union and make application for admittance to the Home and get the benefit of what you are entitled to." His advice caused me a few sleepless nights but next meeting night found me fixing it up with the Business Agent to send in an application. The next move was a trip to the Doctor who in turn told me I was not as good a man as I used to be. He also said Florida was good for something, which I later learned meant old age. Ten days later, I got a notice to report in Lakeland on March 14th. The Local Union made me a very nice appropriation from the Contingent Fund as well as provide my railroad ticket and sleeper. When I said good-bye to the boys, it was snowing hard and real cold and needless to say, it was with mixed feelings I stepped aboard that train. A fellow traveler asked where I was going and I told him, he said, "You sure are a lucky boy, I was down yonder a few weeks ago and it is the greatest place I have ever seen." That helped to perk my feelings up and I started to get anxious about getting here. I got into Jacksonville in the early evening and a fine lady from the Travelers' Aid saw to it that my bag was taken care of and directed me to a restaurant, where I got a good meal for fifty cents. When I returned, she talked to me until train time and got a darkie to put me on the right car. I could not sleep, in fact it was hardly worth while, as I arrived in Lakeland at 5:00 in the morning. I got off on a rather dimly lighted platform, a little bewildered, when I was met with the cheery salutation of "Good Morning Brother, are you heading to your Home?" This gentleman introduced himself as the Superintendent and with him was a darkie in a neat uniform with "Carpenters' Home" on his cap. All he seemed able to say was, "Yus suh." I was asked to follow him while the Superintendent went in search of another fellow. A few minutes later, he re-

turned with another Brother from the wild and woolly West. We hopped aboard a new bus and at the end of a three mile drive, I got the first glimpse of the entrance to the grounds and I got quite a thrill as we rode under the Arch, but this was only to be followed by a greater one. As we wound our way up the driveway, there stood my new Home, in all its majestic splendor, swa thed in the rays of the rising sun that seemed to turn it into a palace of gold. Before me lay a well kept lawn with palms and other types of trees, shrubs and flowers that I had never seen before. I could hardly believe my eyes, and to think that only a few hours before I had left the old town in a blinding snowstorm. Before I awoke to the reality of it all, the Boss said, "Well, here we are Boys," and out we got. In a few minutes he had us in a room and suggested that we flip a coin for the choice of the two beds and closets. We agreed, and I lost, but when I got time to look around, there was no choice, everything was the same but it was just his way of making us feel good about things.

Right on the dot at 7:00 o'clock, he took us into breakfast, Oh Boy! it was some breakfast—the fruit, hot cakes, sausage and coffee were all that any man could desire. At 9:00 o'clock I met Dr. Griffin. His examination was a thorough one and I kind of think he was checking up on the Doctor that examined me at home. Anyhow, he said I was none the worse for my trip and there was only a slight difference in the two examinations. If my suspicions are right, it is a good thing to check up, for it is only to protect us all from things the other doctor may have missed. Nothing further was required of me that day and I was at liberty to do as I pleased.

The boys from the various parts of the country began to arrive and they in turn were received and assigned to rooms in the same manner I was. Everything working as if it was an every day occurrence. The whole thing reminded me very much of going on a new job, everyone sizing the other fellow up and just a little bit slow to get acquainted. The General President was sure a busy fellow shaking hands, talking first with one fellow and then the other, always able to find some fellow in our Local that we knew and it made us feel good to know that he knew someone we knew.

At supper, we all sat down together to a real spread of fried chicken, fritters, desert and coffee. The General President welcomed us with the following well chosen remarks:

"As your General President, I wish to extend you a welcome to your new Home and wish you a long life to enjoy the many features that are provided for your comfort here. To assure perpetuation of the beauty and economic future of this Home, it is essential to adopt a set of simple rules which will be necessary that all strictly adhere to, by so doing, we will perform our part in maintaining a co-operative spirit and hygienic standard which will promote the welfare and happiness of all concerned."

He then read the rules and regulations, which are as follows:

1. Reveille—Not later than 6:30 A. M.
2. Completion of toilet by 6:50 A. M.
3. Breakfast—7:00 A. M. to 7:30 A. M.
4. Personal effects in order by 8:30 A. M.
5. Opportunity of interviewing Management 9:00 A. M.
6. Necessary Medical attention 9:00 A. M.
7. Weekly town passes issued 10:00 A. M.
8. Luncheon—12:30 P. M. to 1:00 P. M.
9. Reception of Visitors 2:00 P. M. to 4:00 P. M.
10. Supper—6:00 to 6:30 P. M.
11. Retire not later than 10:00 P. M.
12. Monopoly of games, property or location is not permissible.
13. No games are permitted in bed rooms.
14. Conversations in Reading Rooms are not allowed.
15. No visitors permitted in the Building on Sunday.
16. Smoking in bed prohibited.
17. All Doctor's orders must be carried out in every detail.

18. Controversy with employees is not permissible.
19. Inattention on the part of any employee must be reported at the office.
20. Religious and political argument is forbidden.

Violation of the aforesaid Rules is punishable by curtailment of liberties by the resident official.

All contingencies arising, not covered by Rules and Regulations will be decided by the Home Authority pending clarification by the General President. You will agree with me that they will not be hard to keep, but the last two paragraphs give the resident authority a lot of power should the occasion arise and as far as I can learn everyone here is satisfied with them. The General President further informed us that the office staff would help us with our correspondence if our hand was too shaky to write and implored us to make a pal and confidant of the Superintendent. It is needless to say by this time a great many of you have had a sample of the letter writing ability of Miss Chris.

Our first supper together was a huge success. The ice was broken and we all adjourned to smoke the President's cigars in the spacious lounge. As the early hours of the evening slipped by, I sat in the comfortable red leather chairs and mused of the days that have gone by, wishing in perfect contentment that some of my pals had lived long enough to see the reward that you members made possible for an old fellow who never had his card in his boots.

The soft radio music helped the Sand Man and I had to retire. As I lay on the best mattress I have ever slept on and for the first time in many moons, I fell asleep wondering if it was all a dream.

(To be continued)

SAWDUST AND SHAVINGS

The other night down on the pier, the conversation shifted from fish to fishing and a Pal of mine told this humdinger:

"When I was working in St. Petersburg, I used to go down to the pier and one day I saw a fellow catch a balloon fish. As he started to land it, down swooped a pelican and grabbed fish, hook, line and sinker. The fish realizing its terrible position, just inflated itself and blew the pelican into a thousand pieces. Of course the fisherman got back his hook, line and sinker."

Step up, Tom, you are at the top of the class.

* * *

It is funny to listen to some fellows lay down their ideas of the rules of croquet. Anyhow the game is still going on by the printed set of rules.

* * *

Some of you fountain pen artists better be careful when writing to your Labor papers. My advice is stick to what you know to be facts in the case. Someone is liable to call you on it.

* * *

Say, Boy! You learned more about personal hygiene in that two minute talk with the Boss than you ever knew before. My advice to you is don't wait to be told, take a bath.

* * *

Say John, are you sure the flowers you brought Miss Hattie grew outside of the lady's fence?

* * *

A citizen of the world arrived in our midst. If I recall, some of them kind of citizens were thrown out of the last Convention. The rest of us chaps are citizens of the United States and Canada, and so are you my good friend.

* * *

I am told that two of our associates had their minds set on being the first to get shaved in the new barber shop. It is too bad they couldn't both get their desire. My advice is "don't crowd, take your time," the other fellow is just as much entitled to any honor as you.

Selfishness is an exposure of the inner self.

* * *

The first aim of education is not scholarship but manhood.

* * *

Conceit, is blissful and energetic endeavor of ignorance.

Editorial

THE CARPENTER

Official Journal of
THE UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA

Published on the 15th of each month at the CARPENTERS' BUILDING
Indianapolis, Ind.

UNITED BROTHERHOOD OF CARPENTERS AND JOINERS OF AMERICA, PUBLISHERS

FRANK DUFFY, Editor

SUBSCRIPTION PRICE
One Dollar a Year in Advance, Postpaid

The publishers and the advertising agent use every possible precaution available to them against accepting advertisements from other than reliable firms, but do not accept any responsibility for the contents of any advertisement which appears in "The Carpenter." Should any deception be practiced by advertisers at any time, upon members, their duty is to immediately notify the Post Office authorities. Therefore, address any complaints to your local Post Office.

INDIANAPOLIS, JUNE, 1929

New Move By Reds—Old Program Fails

COMMUNISTS must re-organize their Trade Union Educational League, says one of the "red" strategists, writing in the official organ of the league.

The brethren are informed that this "boring-from within" weapon has "completely fallen down," and the situation is "intolerable."

A call is made for the reorganization of the league to be known as Trade Union Unity League, which will openly attempt to organize left-wing unions. Under the old system the league cautiously applied a revolutionary "penetrating" policy among trade unionists.

A convention has been called for June 1st and 2nd, 1929 to be held in Cleveland, Ohio when the new organization will be launched. It will still be the Trade Union Educational League under another name. It will still be the left-wing of the workers (communist) party of America.

It is claimed that a responsible leadership of the T. U. U. L. must be established. The usual call for funds has been made, as the strategist indicates that the Trade Union Education League has become shop worn as a money getter and a new system is necessary.

Our members are warned to have nothing to do with this outfit with which we are all familiar, which will now attempt to masquerade under a new name, Trade Union Unity League.

The Human Element In Safety Program

SAFETY for the craftsmen in the building industry has, in recent years, been given considerable attention, with the result that much progress has been made toward eliminating many of the dangerous hazards which daily confronted the average building mechanic.

Accidents, some of them fatal, still occur daily, however, and will continue to occur, as long as the human element, the mechanic himself, fails to appreciate the dangers and probable results for himself and his dependents.

Safety is an industrial problem that has existed since first one man started working for another, and in the last analysis it boils down to a problem of education. Effective safety measures depend largely upon reaching the individual workman and making him think more of himself and his job. The building mechanic who daily takes risks endangering himself and his fellow workmen, with an utter disregard for the safety appliances and devices placed on the job for his protection cannot hope to escape an accident. Sooner or later, he is injured, perhaps killed, but if he does live, it is then too late to think of safety. This man on a job is a menace, not only to himself, but to every other man, who

must work with him. His carelessness and thoughtlessness often result in injury to others, before he himself pays the penalty for his folly.

That such a man does continue his dangerous practices is a direct reflection upon the contractor, superintendent, foreman or whoever is in charge of the job. Foremen, especially, could do more than anyone else, to encourage safety. A good foreman has a real interest in his men. Safety isn't a question of the foreman saying, "Don't do that," or "cussing" a man out who bungles or hits his thumb with a hammer. The foreman should consider it his privilege as well as his duty to give his men high ideals, to teach them, not only their individual responsibilities, but to give them a fair appreciation of the rights of their fellow workmen, and above all, teach them to see in their jobs, the best friend they have in the world. Too often, foremen fail to see an accident in the making; they fail to see a workman doing something today, which their experience should tell them will, if repeated, sooner or later result in an injury. The practice should be stopped before—not after the injury occurs.

Another real obstacle which has impeded progress along safety lines is the disinclination of many men to give the subject careful thought and study. In this case we are face to face with the objection on the part of so many men to any effort so laborious as thinking seriously about anything.

So many angles enter into a discussion of this character that it is extremely difficult to point a finger at any one of them with the accusation: "Here is the cause of accidents." However we would like to add a few words about one of the contributing causes that helps to swell the total number of accidents. We refer to those contractors who insist upon the speed-up method of production, whose avarice and greed for profits prompts them to sacrifice the lives and limbs of their employes, in order to get a maximum of work done in a minimum of time. No humanitarian pleas will sway this type of employer from his speed-up practices. His methods must be curbed however, through legislation, if necessary, otherwise if possible. One sure way of making him change his ways is through his pocket-book. When he finds he must pay for accidents on his jobs, he will then have more consideration for the men who work for him.

Needless accidents can and must be eliminated in our industrial life if we are to add to the happiness of the homes throughout the land. Education of the workers to the dangers and hazards of their particular jobs together with the cooperation of employers will go a long way toward remedying this evil.

Industrial Profits

A NEW way of looking at the distribution of profits in industry has been expressed in an editorial in "Nation's Business," the journal of the United States Chamber of Commerce.

It reviews how in the old days, industry was composed of capital and labor, how capital viewed labor, as a commodity, to be bought at the market price, like materials and machines. Capital, then assumed the attitude that inasmuch as it took all risks and accepted losses, it was entitled to take all profits.

Later management was added to the dual industry of capital and labor and we now think of industry as three-fold. Capital still assumed the same old attitude by saying, "You, labor; and you, management, have had your wages; the risk was mine, the gains should also be mine."

But management is now beginning to demand a share of the profits, and rightly so, for without capable management and efficient labor, there would be no profits. Management and labor are therefore justly entitled to a fair share of the profits that their ingenuity and skill have made possible.

The editorial advances this idea, "Perhaps we shall see a day when capital, not labor and management, shall have a fixed wage, and profits will go to management and labor."

Labor has always contended that it was entitled to a fair share of the profits of industry, and now that management is advancing its demands, it does seem that capital will at least be forced to do something about it. Obviously, capital needs both labor and management to create profits.

A mule can't pull while he's kicking and he can't kick while he's pulling. Neither can you.

Official Information

GENERAL OFFICERS
Of
THE UNITED BROTHERHOOD
Of
CARPENTERS AND JOINERS
OF AMERICA

GENERAL OFFICE
Carpenters' Building, Indianapolis, Ind.

GENERAL PRESIDENT
WM. L. HUTCHESON
Carpenters' Building, Indianapolis, Ind.

FIRST GENERAL VICE-PRESIDENT
JOHN T. COSGROVE
Carpenters' Building, Indianapolis, Ind.

SECOND GENERAL VICE-PRESIDENT
GEORGE H. LAKEY
Carpenters' Building, Indianapolis, Ind.

GENERAL SECRETARY
FRANK DUFFY
Carpenters' Building, Indianapolis, Ind.

GENERAL TREASURER
THOMAS NEALE
Carpenters' Building, Indianapolis, Ind.

GENERAL EXECUTIVE BOARD
First District, T. M. GUERIN
290 Second Ave., Troy, N. Y.

Second District, W. T. ALLEN
3832 N. Gratz St., Philadelphia, Pa.

Third District, HARRY SCHWARZER
1200 Brockley Ave., Lakewood, O.

Fourth District, JAMES P. OGLETREE
106 E. Plymouth St., Tampa, Fla.

Fifth District, J. W. WILLIAMS
3948 S. Grand Blvd., St Louis, Mo.

Sixth District, A. W. MUIR
200 Guerrero St., San Francisco, Cal.

Seventh District, ARTHUR MARTEL
1712 Chambord St., Montreal, Que., Can.

WM. L. HUTCHESON, Chairman
FRANK DUFFY, Secretary

All correspondence for the General Executive Board must be sent to the General Secretary.

Travelling Members Attention

The wide-spread publicity given the Federal building program has attracted a large number of carpenters to Washington, D. C., who find upon their arrival that while some of the work is under way, a large percentage of the contemplated buildings are not likely to start within the next three years due to the fact that the appropriations made for their erection cover a period of ten years. Rec. Sec. George Underwood, L. U. No. 132 advises that many members have been idle for eight months and future prospects aren't very encouraging due to the fact that six building crafts, are negotiating new trade movements. All carpenters are therefore requested to stay away from Washington, D. C. until further notice.

* * *

Work is scarce in Lancaster, Pa., and many men are walking the streets, advises Rec. Sec. I. S. Walker, L. U. No. 59. Travelling members are urged to give that locality a wide berth.

* * *

Many men are out of work in Des Moines, Iowa, despite reports that there is an abundance of work going up, advises Fin. Sec. William L. Witter, L. U. No. 106. Steer clear of that locality.

* * *

Newspaper reports that there is a large amount of work in Harrisburg, Pa. are false and misleading, advises Rec. Sec. Henry G. Larsen, L. U. No. 287. Many men are idle therefore all carpenters are requested to steer clear of that vicinity.

* * *

There is a surplus of carpenters in Ithaca, N. Y., advises Rec. Sec. L. E. Moore, L. U. No. 603. Work is slack and future prospects aren't very encouraging, therefore all carpenters are requested to give that vicinity a wide berth.

* * *

A lock-out of practically all of the building trades, including the carpenters is in effect in Lorain, Ohio, advises Rec. Sec. John A. Wright, L. U. No. 705. This situation is the result of the con-

tractors composing the Builders' Exchange refusing to accept new agreements raising the wage scales $1 per day. All carpenters are requested to disregard advertisements stating carpenters are wanted in Lorain, and to stay away from that locality until the dispute has ben settled.

* * *

Lakeworth, Fla., has an oversupply of carpenters, two men for every job, according to Sec. Alec J. Lewis, L. U. No. 1308. All carpenters are asked to disregard all newspaper notices that men are needed there and give the locality a wide berth.

* * *

More than half of the carpenters in Lubbock, Texas are idle reports Rec. Sec. D. J. Lowery, L. U. No. 1884. Give that locality a wide berth.

Cleveland Apprentice School Commencement

The fifth commencement of the Building Trades Department of the Cleveland Trade School was held May 9, 1929. About 150 graduates representing six building trades—bricklaying, carpentry, electrical work, painting, plumbing and stone-cutting — received diplomas.

Splendid addresses dealing with apprenticeship and trade education were delivered by John P. Frey of Washington, D. C., Member, Permanent Committee on Education, American Federation of Labor, and Secretary-Treasurer Metal Trades Department; Dwight L. Hoopingarner, of New York City, Executive, American Construction Council; and Charles Lake, Assistant Superintendent of Schools, Cleveland, Ohio. Howard L. Briggs, Director of Vocational Education, Cleveland Board of Education, acted as Chairman. Rev. Louis C. Wright, Ph. D., Pastor, Epworth-Euclid Church, Cleveland, delivered the invocation. The diplomas and medals were presented by M. D. Jones, Principal, Cleveland Trade School; and the Patrick Henry Junior High School Orchestra furnished the music.

Seven medals, contributed by the Builders' Exchange of Cleveland, were awarded, one to each trade, including the sheet metal trade, to the boy who showed the most progress in school, the greatest mechanical ability and theoretical knowledge, as well as the best attendance record. These medals are to be contributed annually.

Shawnee, Okla., Auxilary Entertains Oklahoma City, Okla., Auxiliary

Ladies' Auxiliary No. 292, Shawnee, Okla., recently was hostess to the members of Ladies' Auxiliary No. 511, Oklahoma City, Okla.

After a brief business meeting, presided over by Mrs. E. D. Cameron, president of L. A. No. 292, and during which several interesting speakers were heard, a social and entertainment program were enjoyed.

The affair proved very successful and was voted one of the most pleasant in the history of the organizations.

Hempstead, L. I. Auxliary Celebrates First Anniversary

On April 15th, Ladies' Auxiliary No. 206, Hempstead, L. I., N. Y. celebrated its first anniversary with a banquet, followed by a varied entertainment program.

The affair was a complete success and a good time was had by all. The committee in charge of the arrangements is to be congratulated upon the success of the anniversary celebration.

Alexandria, Va. Ladies' Auxiliary Hold Valentine Party

On Feb. 15th, Ladies' Auxiliary No. 115, Alexandria, Va., entertained the members of L. U. No. 1665, their families and friends with a Valentine party.

The entertainment consisted of a varied musical and vaudeville program after which refreshments were served.

The affair was a most enjoyable one and the committee in charge of the arrangements is to be congratulated upon its success.

DEATH ROLL

CHRISTOFER CHRIST—L. U. No. 1765, Orlando, Fla.

S. G. CUNNINGHAM—L. U. No. 63, Bloomington, Ill.

CURTIS C. HALL— L. U. No. 586, Sacramento, Cal.

HENRY KLENK—L. U. 493, Mt. Vernon, N. Y.

EDWARD L. MARTIN, Sr.—L. U. No. 1893, Savannah, Ga.

Celotex for sheat

Means

We work with you to promote this type of construction

THE Celotex Company and carpenters have one great interest in common—frame construction.

More frame construction means more steady, profitable work for carpenters. And it provides the ideal construction for the use of Celotex.

Celotex national advertisements help you by constantly recommending frame construction, promoting steady work for carpenters everywhere, and giving the best means of meeting the demand of home insulation.

Besides, they sell the idea of remodeling old rooms, lining attics, garages and sun porches with Celotex. These extra jobs keep you busy between contract work.

You know how easy Celotex is to handle—how strong and rigid a wall it makes . . . how it shuts out summer heat and winter cold. It comes to you in boards 7-16″ thick, 4′ wide, from 7′ to 12′ long (or "double-thick", measuring $\frac{7}{8}$″). It saws without splitting. It's a fine material to work with.

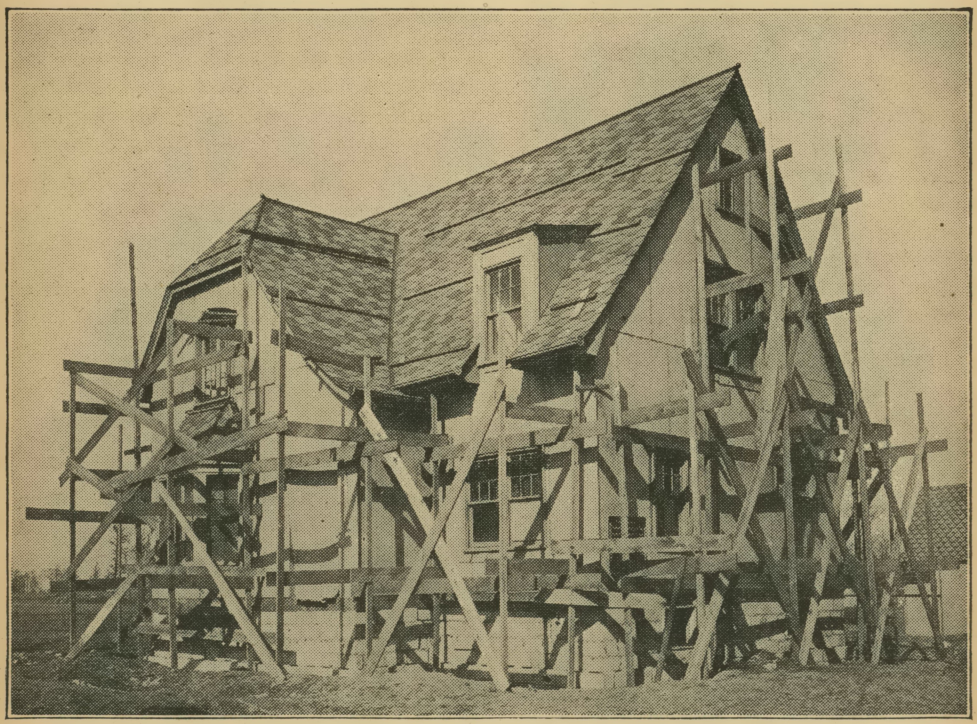
Ask your local lumber dealer, or write to us, for a copy of "Year'Round Comfort and Fuel Saving in Every Home". It will tell you how Celotex is used in frame construction.

The word
CELOTEX
(Reg. U. S. Pat. Off.)
is the trademark of and indicates manufacture by
The Celotex Company, Chicago, Illinois

THE CELOTEX COMPANY
919 N. Michigan Ave.,
Chicago, Illinois
Mills: New Orleans, La.
Branch Sales Offices in many principal cities
(See telephone books for addresses)
Sales Distributors throughout the World
In Canada:
Alexander Murray & Co., Ltd., Montreal

Now Double-Thick Celotex—a stronger, thicker board made four feet wide, and from 7′ to 12′ long, $\frac{7}{8}$″ thick.

thing
more Frame Houses



Here is a residence in Milwaukee, built by W. E. McDermott showing how Celotex, used as sheathing, adds bracing strength to walls.

. . . . .

Celotex insulation makes frame houses comfortable winter and summer—protects them from all extremes of temperature.

CELOTEX
BRAND
INSULATING CANE BOARD

Correspondence

This Journal Is Not Responsible For Views Expressed By Correspondents.

From A Resident At The Home

The excerpts printed below were taken from a letter written by Brother Jake Bowers, a member of L. U. No. 11, Cleveland, Ohio, to Secretary Walter Mapes of Cuyahoga County District Council, Cleveland. Secretary Mapes forwarded the letter to us for publication in our Journal.

* * *

Walter J. Mapes, Secretary,
Cuyahoga County District Council,
Cleveland, Ohio.

Dear Sir and Brother:

This beautiful Sunday morning, I will try and write you a few lines. There are lots of thing I would like to tell you but do not know how to go about it. I had a letter yesterday from Brewster and he told me that you had met our Manager. He is a good Manager and everybody likes him. No one could say anything against him—all the help here are good and will do anything for us.

Well, I got the biggest surprise of my life here. I did not expect to get the treatment that we get here in the Home. I do not regret the over 48 years that I spent in No. 11 as I have received a good reward for what I have done. There are lots of carpenters if they would have stuck to the Organization would now have the best Home in the world. Nothing to do but keep neat and clean was what our General President told us the first night that I was here.

I do not regret coming here, the weather is fine—good and warm and the food that we get is the best that can be had. No two meals the same, clean napkins every meal, and the rooms and beds are just as clean as can be made. The Housekeeper is the best lady you ever met—pure southern, always in a good humor and will talk everytime that she meets us. The young lady in the office cannot be duplicated anywhere.

Oranges, the best in the world—when we pull them off the trees we eat oranges until we can hardly look an orange tree in the face. That is what Brother Dick Southwell from No. 27, Toronto, Canada said. He is the older member here, in the Organization about 46 years. He served on a tabulating committee one time at the General Office.

I hardly know what more to write. I feel better than I have for a long time and would not leave here for anything. It was pretty hard to leave my folks but they do not need to worry about me.

I think I will close by hoping that all are well and in good health. My best regards to all the boys. The Doctor told me the other morning he did not need to ask me how I was as he could tell by my look. He is a good Doctor and comes here every morning.

Jake Bowers,
Lakeland, Fla. Carpenters' Home.

An Ineligible Member Discusses The Home and Pension

Editor, "The Carpenter":

I have been very much interested in our Home and the Pension which I hope will soon be a reality.

It seems, by the writings of some of the young members, that they feel that the old timers are getting all the benefits and they, the paying with little prospects of becoming beneficiaries. We do not at all times reap just exactly what we sow, and the members of this organization are continully reaping the benefits of the work done by brother members.

There has been so much said about the old timers, in our Journal that I would like to add a few remarks in regard to their position as to benefits of Home and Pension for the enlightenment of the younger brothers who may think they are not getting an equal chance.

Getting up in years myself, I will state briefly my position regarding same, believing there are many other members

in a similar position. I joined the Brotherhood first in 1888 at the age of sixteen, and have always belonged to a Local if there was one where I worked. Circumstances were such that I have rejoined, I think four times, the last time being about eleven years ago, and I am fifty-seven years old now. Who has the best chance of becoming a beneficiary, the young brother with his life before him and the Home before him to remind him to keep his dues paid, that his membership be continuous, or the old member who has lived his time and was not particular about a continuous membership? Some may think they were not good Union men. There are in my Local now semi-beneficiary and honorary members that have always belonged to a Local if there was one where they worked, and are Union men at heart. Not being particular to keep their membership continuous is the reason for their position as to benefits now.

I wish to show that not all old timers will get the benefit of the Home; yet most of them have belonged long enough to have part in the establishing of it from its beginning, but have little or no chance at all of becoming beneficiaries. Just how many are in this postion I do not know, and presume they cannot be considered as to benefits. Let the young member who is dissatisfied think about that. I am not dissatisfied, just out of luck, that is all. I voted for it and am glad of it, and if I may answer for those who are in the above stated postion as to benefits, they will go down the line just as our forefathers of the craft did, striving to better conditions for themselves and their fellow workmen, leaving the fruits to the coming generations of carpenters.

I wish to express myself in regard to the institution. When the Home and Pension fund was started, I thought the carpenters had made a wonderful and wise decision; and when the Home was completed I thought it the grandest achievement imaginable, and am of the same mind now. I look on it as an institution built for, and mostly used by the coming generations of brother members, and why not? There must be a beginning to everything; and let me here commend the General Officers who have managed the propostion so well. Someone has said they have had a he-man's job, and I believe that is the kind of men we have for our officers. They have done the best they could in every detail, and it lacks but little of being perfect. This proposition is in its infancy, and the law of nature is to crawl before walking.

Brothers, let's have the Pension for those who are so situated that they would rather not go to the Home, yet need aid. It is said that this institution is not a charitable one. Be that as it may, it will keep our old down and out member from requiring much charity, and feel that he has paid for his benefit. None of us want to be subjects for charity. That is the reason for building the Home and having a Pension. Yet who in our organization is not charitable? There is no human being, rich or poor who does not receive charity of some kind every day. We like to call it something else. Read what the Good Book says about charity.

Our institution is not called a charitable institution because it is limited to a certain way of becoming eligible, and only for those who attain to that point, which I am not condemning. No, there must be an indiscriminate law regulating this institution, and I can see no better plan than the one we have to start with. The one important point that I wish to impress all members with is, if they want the institution to attain to its greatest benefit they must be chariable to it and it will do its work.

I have tried to show that there will be many old time members who will not live long enough to get benefits, just as there will be some young members who will not live to benefit age. So let us be satisfied and go forward together. I hope sometime that every loyal member who needs benefits will have it. It takes time to reach the peak of perfection.

Wilford B. McMillon, Rec. Sec.
L. U. No. 375. Pensacola, Fla.

Brother Donahoe Defends His Stand

Editor, "The Carpenter":

I wish to reply to the criticism of Brother C. H. Adams of L. U. 132, Washington, D. C., of my article in the March issue of "The Carpenter." It does not deserve a reply, but for the dishonest juggling with words to befog the issue and create a prejuduce by crying selfish. I am not arguing from a selfish standpoint, as I hope I will never need the benefit of the Home. Even if I was I would make no apoligies for demanding

what I paid for and can force through the courts if necessary.

I am not boob enough to sit supinely by and see men given special consideration they are not entitled to, while others more deserving are denied their just and lawful rights. He says that my statements are ridiculously at variance with the facts; that I am criticising the Home and Pension. He knows that is a willful misstatement. I am criticizing nothing but the thirty year membership as a qualification of eligibility to the Home and Pension.

I base my criticism on an article in the December 1928 issue of "The Carpenter," describing the Home wherein Secretary Duffy reviews the history of the efforts to establish the Home, back as far as 1898. The Atlanta Convention in 1902 endorsed the Pension and per capita tax. The two propositions were submitted to a referendum; "the Pension was overwhelmingly endorsed but the per capita tax was so deeply buried it could not be seen." Who voted on these propositions 27 years ago, but the thirty year members of today?

Brother Adams thinks they should be lauded for so generously endorsing the Pension (but should not be criticized for refusing to be taxed) sure; some people are generous with other people's money. They all wanted the Home and Pension but they could wait till someone else provided the means to establish them.

He says "no one can justly claim this defeat was by the vote of the old members; who else voted 27 years ago but the thirty year members of today or their elders? He certainly proved his alibi. If the cap didn't fit him he shouldn't wear it. But apparently it fit so close it hurt and he could not suppress a howl. He closes with some very beautiful sentiments. But beautiful sentiments don't build Homes nor pay Pensions, unless they are accompanied by cash contributions.

D. T. Donahoe,
L. U. No. 264. Milwaukee, Wis.

"Labor Omnia Vincit"

Editor, "The Carpenter":

I am like the optimistic man who fell from the top of a skyscraper downtown, and as he passed each floor, one by one, cried out "All is well so far." I wonder where I am going to get the next job and wonder when I get one, how long it is going to last. In the perplexities and complexes of the average carpenter's life is a repetition of passing advents.

In Toronto we are in a peculiar position as to the condition of ourselves by having a group of old hangers-on, the remnants of the old Amalgamated Society of Great Britain, who have set themselves up as patriots of dissension in naming themselves "The National Carpenters of Canada." We have been unable to reach an agreement with the Builders' Exchange, owing to the tactics thus adopted by those opposed to the Brotherhood of Carpenters. "United we stand, divided we fall."

We have fallen short in receiving $4.40 in our pay envelope. We should have had a 10c increase, making $1.10 per hour. The building program for April exceeded $3,000,000 and I may state approximately there have been more of our brothers unemployed than any month all winter.

If you are thinking of coming to Toronto, write Brother Chas. Moad, Secretary United Brotherhood of Carpenters, Church Street, Toronto, and by doing so you will be helping yourself, and the number who are waiting in the line.

The National Union of Canada is but an epoch of antiquated philosophies. International intercourse is conceived in liberty by the conquest of the air and many other modern inventions coming through the horizon of modern thought. The technique of new ideas in the building industry and many more outside trades has increased the unemployment to such an extent that here in Canada, the Provincial or "State" Governments, along with Ottawa are considering the advisability of a measure to relieve those who are unfortunate, such as seasonable workers and mechanics in the winter time.

The Government has acknowledged the part time workers are entitled to some consideration in having unemployed and sick benefits. The hours of labor should be a controlling factor to assist the individual to more permanent work.

The initiation of a universal 40-hour five day work week, to be under the boss and two days to do our own free will. This is in the form of evolution in many cities at the present time. A sur-

vey of the procedure, discussion and the attitude toward ourselves in building up our local business should be made attractive by being promptly on time, orderly in discussion and eliminating personal grievances, speaking of the question at all times for the organization. How often have we stood up when those gracious words were said. "To be charitable in judgment and assist our brothers at all times." Let us not make a phrase of it. Put life into it, and act it on the job, that you may find a brother further on the way to Trade Unionism.

We can rise no higher than what is within ourselves and we are the gauge and thermometer of our own destiny in life. As an illustration of this a water gauge of a boiler is eagerly watched by a stoker. It indicates the pressure that is behind it, and it behooves our membership to enlighten themselves of the condition to attain the influential quality and mechanical association, by reading "The Carpenter." The craft problems in it are a treat for those who grasp at higher knowledge in the art of the trade.

In Toronto we are fortunate in having an example of our motto, "Labor Omnia Vincit." It expresses the power of labor. The many fine buildings attribute to the crafts, the skill and the resourcefulness of all classes.

Brothers if it is within your reach on the 23rd of August to the 7th of September, the gate admission is 25c. I refer you to the greatest annual exhibition in the world. To each individual industry a day is given. It takes many people to mould a world and many instruments to make a symphony, in all its simplicity and beauty. Our Motto. "Labor Conquers All Things."

William Duncan,
L. U. No. 27. Toronto, Canada.

Ladies' Auxiliary No. 122

Editor, "The Carpenter":

We have been reading and enjoying the correspondence pages of "The Carpenter" very much and like to hear from our sister organizations. We did not hold a bazaar this year but had a dollar sale. The orders came in so fast it kept all busy to keep the orders filled. A card party was held April 8th and a motion picture and one act play was given April 24th, the cast being members of No. 122. We had wonderful cooperation with the Theatrical Stage Union, and Movie Picture Union and Local 61.

We recently completed a membership drive adding 31 members to our list. We have on hand a beautiful hand made quilt we are raffling off. In these various ways we keep our members interested. We are very proud of our degree team of sixteen ladies, who look so nice in their white uniforms and blue ties. We would be glad to hear from any of the Auxiliaries and exchange ideas, for the good of our order.

Mrs. Grace Wills, Rec. Sec.,
L. A. No. 122. Kansas City, Mo.

Information Wanted

Information is wanted regarding the present whereabouts of Dallas E. Williams, a carpenter who left Petersburg, Va., in 1918 and was last heard from in Newport News, Va., in Oct. 1918. He is described as being 51 years of age, 6 feet tall, blue eyes and bald-headed. When last seen he weighed approximately 200 pounds. Anyone knowing his present whereabouts, kindly communciate with Frank Griffin, 348 Spencer Ave., Indianapolis, Ind.

The Clique

What is the Clique? It's a body of men
Who attend every meeting, not just now and then;
Who don't miss a meeting unless they are sick—
These are men that the grouch calls the Clique.

Who don't make a farce of that sacred word Brother;
Who believe in the motto, 'Help One Another';
Who never resort to a dishonest trick—
These are the men that some call the Clique.

The men who are seldom back in their dues,
And who from the meeting do not carry news;
Who attend to the duties and visit the sick—
These are the men the crank calls the Clique.

We all should be proud of members like these;
They may call them the Clique or whatever they please,
They never attempt any duties to dodge—
These are the Clique that runs most every lodge.

But there are some people who always find fault,
And most of this kind are not worth their salt;
They like to start trouble, but seldom will stick—
They like to put all of the work on the Clique.

—Exchange.

To organize, is to create a state of force and power.

Craft Problems

CARPENTRY

(By H. H. Siegele)

LESSON XV

A carpenter could not get along very well without tools. It can also be said, that without material, a carpenter is helpless, so far as accomplishing tangible results are concerned. These two remarks bring us to our subject for this lesson. . . . . To be frank, we do not know whether that which we are to deal with here, should be classed as tools or material . . . They are neither, and at the same time, they are both. Knots . . . or, "Useful Knots," as found in the "Handbook for Boys" published by "Boy Scouts of America," to which publication we are indebted for much that we shall say in this lesson, and for all of the illustrations.

Ropes and cords are used very extensively by builders, and especially by carpenters. The rope is more often used as a tool, while the cord is used in many cases as material. Wherever ropes or cords are used, it almost always follows that some kind of a knot must be used to fasten them, either to other cords or ropes, or to some material or object. This being true, it is very important that every carpenter early in his apprenticeship should obtain as much knowledge about knots and how to make them, as he can.

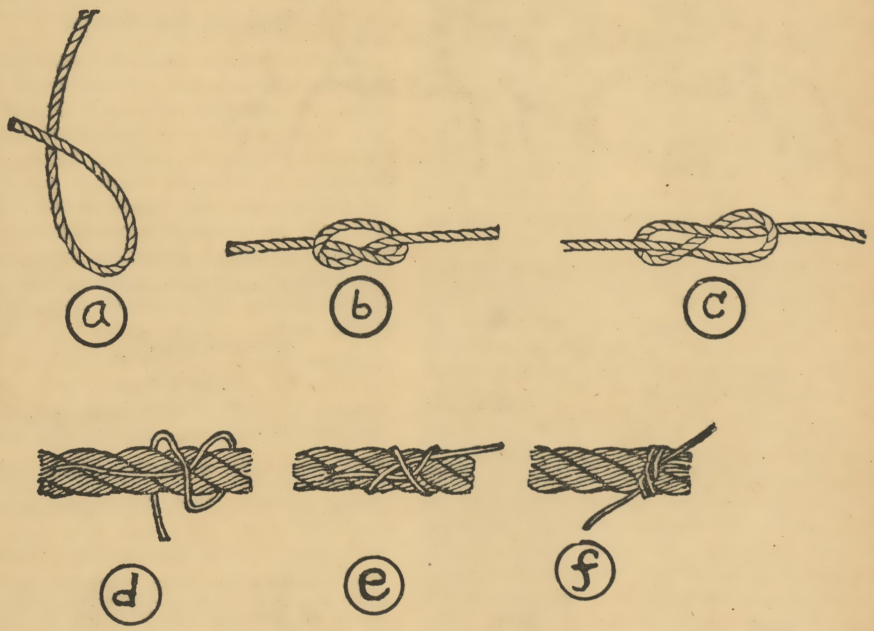


Fig. 91

A knot, in order to be considered good, must have three qualities; namely, that of being quickly tied, that of holding when tied, and that of being easy to untie. Likewise, there are three distinct parts to a rope when it is tied; that is, the long unused part, called the standing part; the loop formed whenever the rope is turned back, called the bight (see Fig. 91, a), and the part used in leading, called the end.

Fig. 91, b, shows what is called, the overhand knot; while at c, is shown the figure-of-eight knot. These knots are used to keep a rope or cord from pulling

through a pulley or an opening, or to give a better hand-hold. At d, e, and f

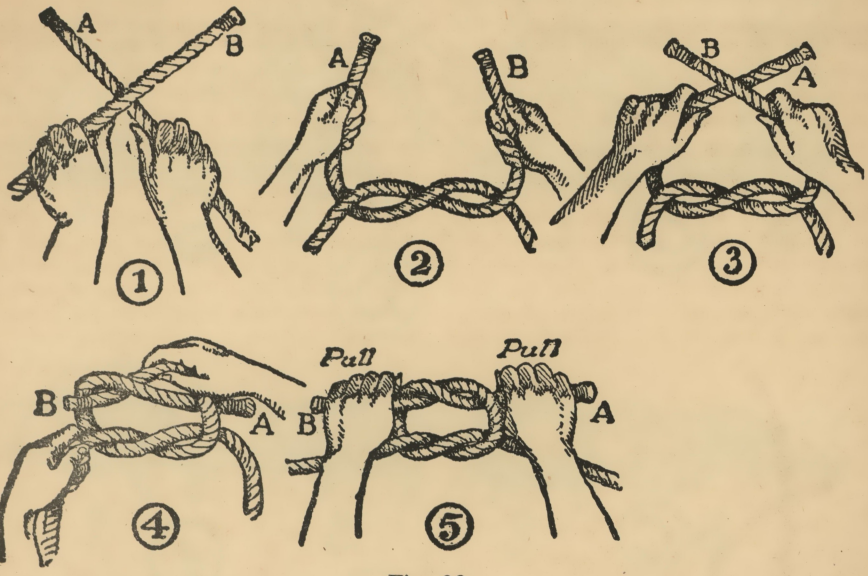


Fig. 92

are shown the three stages of making a simple temporary whipping for the ends

square knot. This knot is used for tying two ropes or cords together. It never slips or jams, and is easy to untie. Another knot used in tying two ropes to-

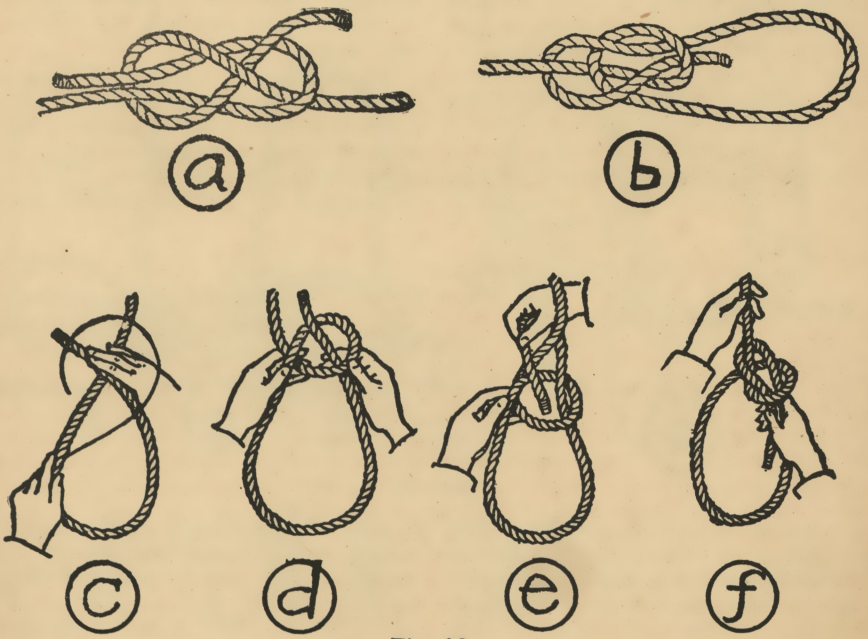


Fig. 93

of ropes or cords to keep them from unraveling.

Fig. 92, 1, 2, 3, 4 and 5, show five stages in the making of a reef, or a

gether is called the sheet-band knot, see Fig. 93, a. Fig. 93, b, shows the bowline knot. This knot is used by many carpenters in fastening cords to window

weights. The noose that is shown by the illustration does not jam or slip. It is also used for lowering or lifting persons who have been injured, or persons who have been trapped by fires in burning buildings. (Ropes, cords and knots are very useful in rescue work and in first aid work. This should be borne in mind by the reader, since we are going to deal with this work, especially that pertaining to first aid, in our next lesson.) How to tie the bowline knot is shown in its respective orders by c, d, e and f Fig. 93.

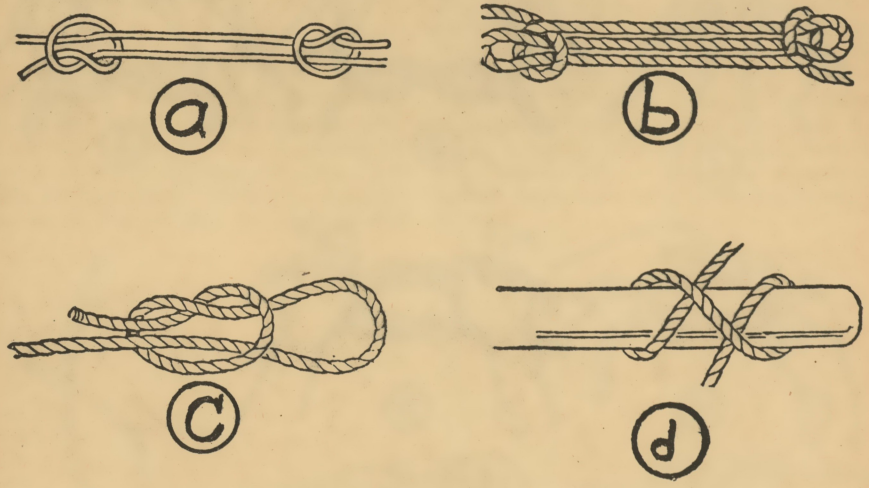


Fig. 94

The fisherman's knot is shown by Fig. 94, a. This knot does not slip and is easily untied by pulling the two short ends. At b, is shown the sheepshank knot. It is used for shortening ropes, by gathering up the amount to be shortened, then making a half-hitch at each of the bends as shown. A slip, or running knot is shown at c. The harder this knot is pulled the tighter it becomes. And at d, is shown a clove-hitch knot. It is used to fasten one pole to another in fitting up scaffolding; this knot holds snugly; and is not likely to slip laterally.

Fig. 95, a, shows a timber-hitch knot. This knot is used for fastening ropes to timbers, and is often used by carpenters and builders. At b, is shown two half-hitches. This knot is useful because it is easily made and will not slip under any strain.

Fig. 96, a, 1, 2, 3 and 4, shows how to make the carrick-bend knot. It is used for fastening two ropes together. And at b, 1, 2, 3 and 4. is shown how to make the miller's knot. At c; 1, 2, 3 and 4 are shown four ways of making rope halters.

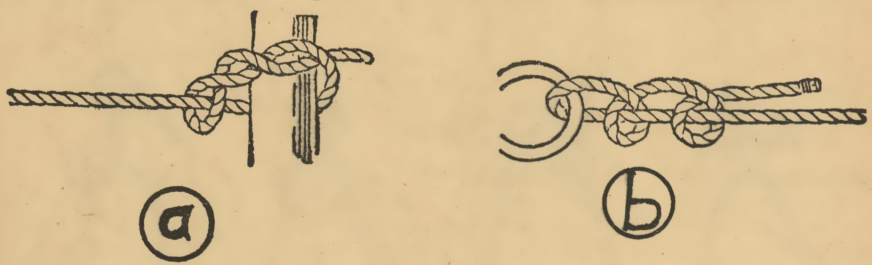
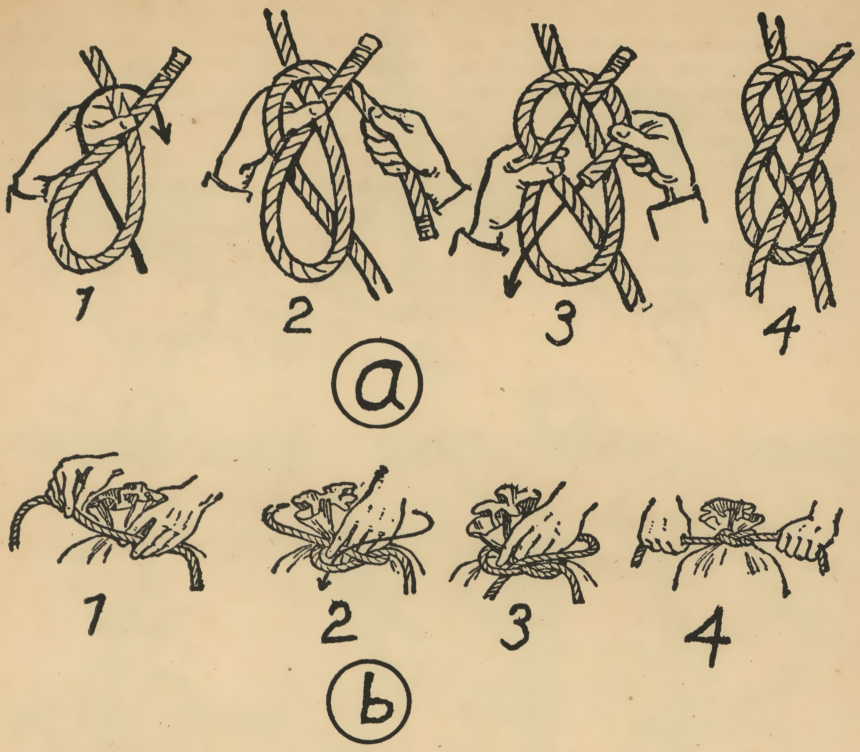


Fig. 95

Fig. 97, a, 1 and 2, shows pipe-hitch knots. At b, 1 and 2, is shown the stevedore knot and how to make it. This is an end knot.

Fig. 98, a, 1 and 2, shows the barrel-hitch knot and how to make it; and at b, is shown the girth-hitch knot; while at c, 1, 2 and 3, is shown the binder-twine-bend knot and how to make it. At d is shown the lariat loop, and at e,


1
2
3
4
a
1
2
3
4
b

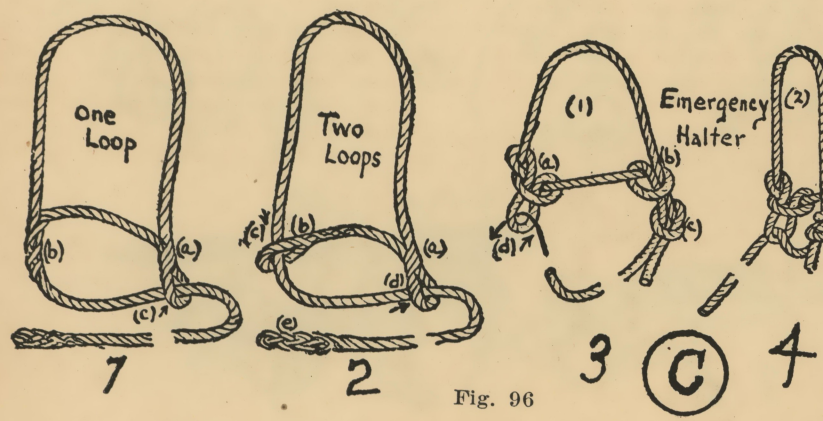

One Loop
Two Loops
(1)
Emergency Halter
(2)
(a)
(b)
(c)
(d)
(e)
1
2
3
c
4

Fig. 96

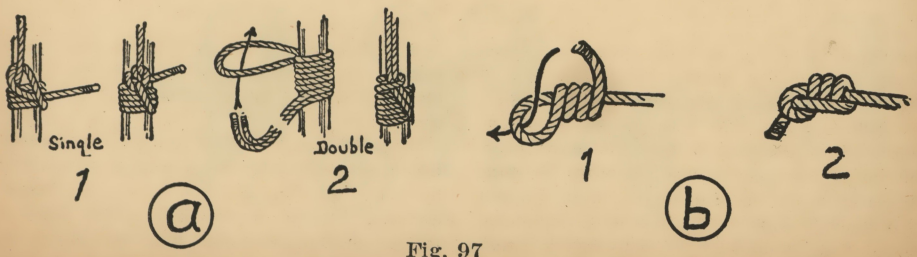
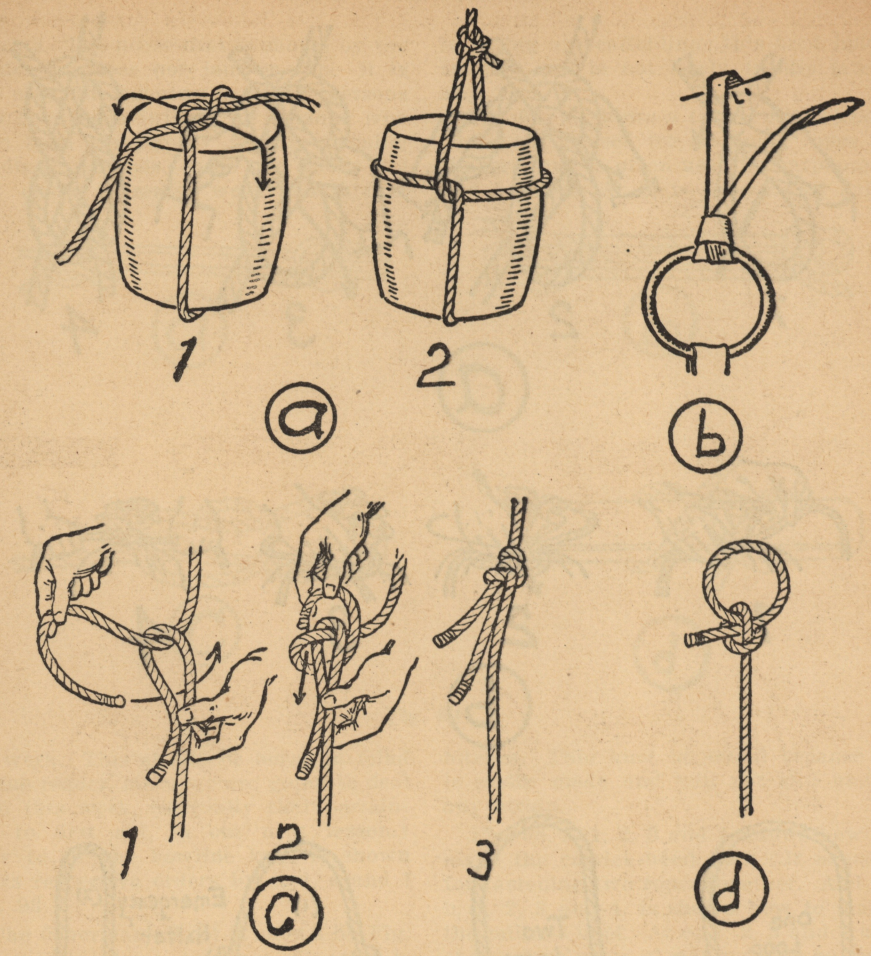

Single
Double
1
2
a
1
2
b

Fig. 97



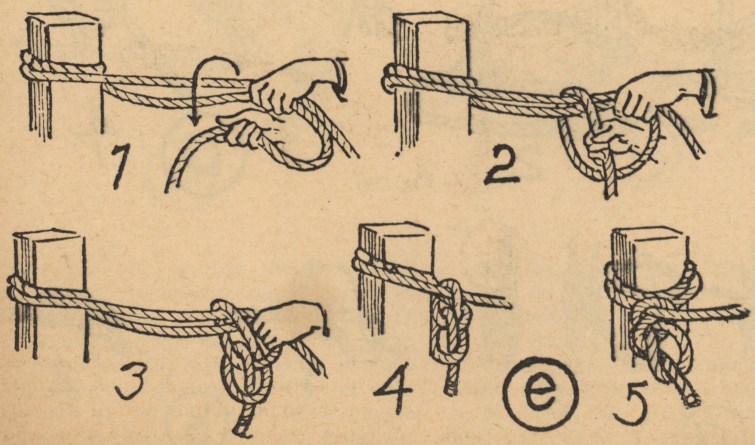


Fig. 98

1, 2, 3, 4 and 5, is shown the hitching-tie knot and how to make it.

Fig. 99, a, 1 and 2, shows one way of whipping the end of a rope or cord; and b, 1, 2, 3, 4 and 5, shows another way;

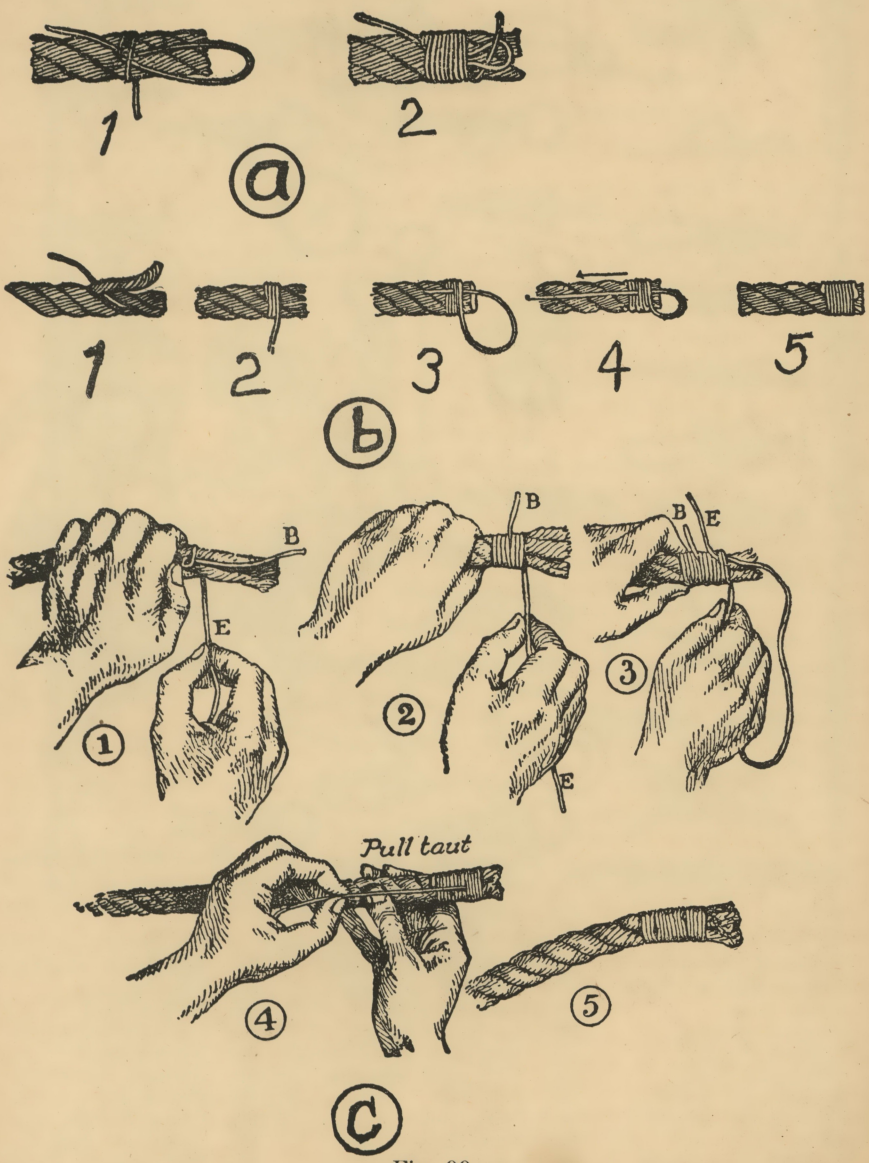


Fig. 99

while c, 1, 2, 3, 4 and 5, gives perhaps the most substantial way of whipping a rope.

Fig. 100, gives the names of and shows forty-nine different knots.

Fig. 101 takes the mind back even beyond the time when ropes and cords, as we have today, were used. From the very dawn of human intelligence men have found it necessary to fasten things together. Vines, tree bark, branches, as well as strips of animal hides and leather have served mankind, before the advent of ropes, as well as afterwards and up to the present time. But ropes, cords,

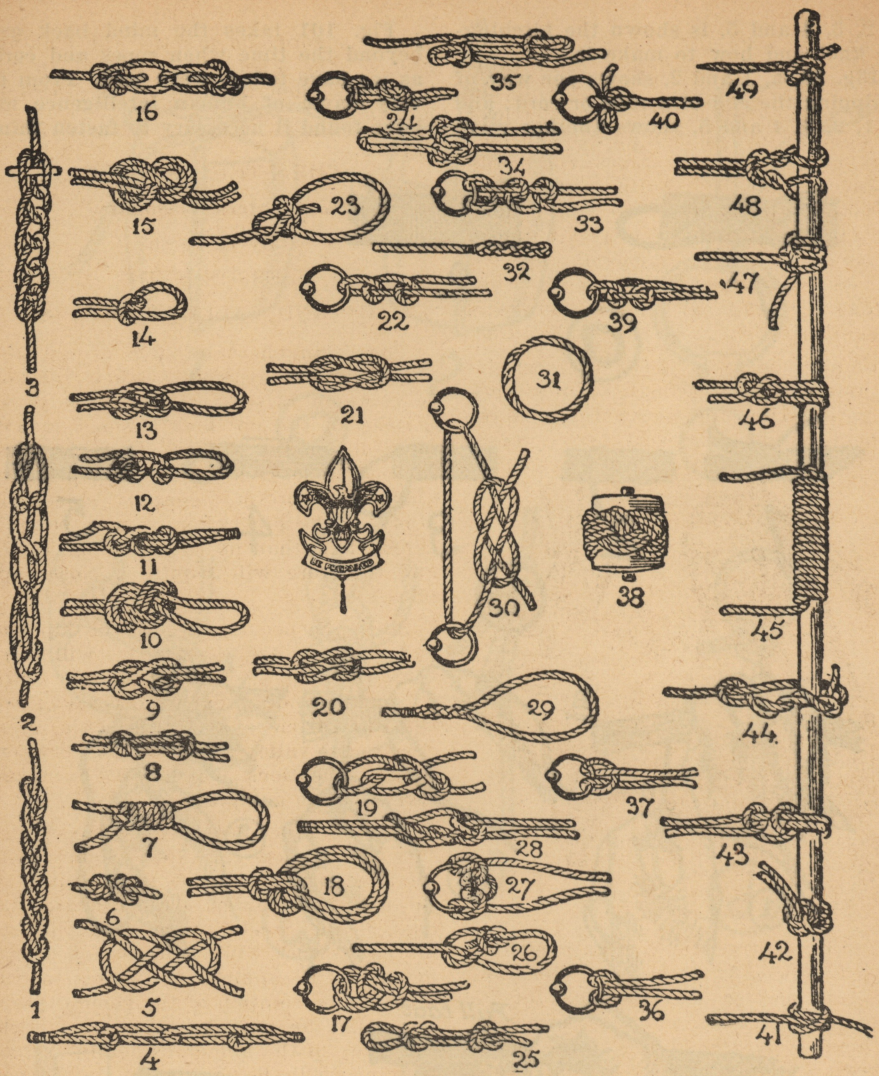


Fig. 100

1. Twist Knot.
2. Double Chain
3. Chain Knot
4. Hawser Bend
5. Carrick Bend
6. Overhand Knot
7. Hangman's Knot
8. Fisherman's Knot
9. Sheet Bend
10. Flemish Eye Knot
11. Sheet Bend Secured
12. Midshipman's Hit
13. Weaver's Knot
14. Ship Knot
15. Flemish Knot
16. Bowline Knots
17. Larks-head Double
18. Bowline on Bight
19. Capstan Knot
20. Granny Knot
21. Square or Reef
22. Two half hitches
23. Bowline
24. Larks-head
25. Fisherman's Eye
26. Running Bowline
27. Larks-head Treble
28. Bending rope to
29. Eye Splice
30. Gunner's Knot
31. Grommet Splice
32. Back Splice
33. Sailor's Knot
34. Shamrock Knot
35. Sheepshank
36. Larks-head
37. Larks-head (x)
38. Turk's head
39. Sailor's Knot
40. Slip Knot
41. Clove Hitch
42. Running Knot
43. Fisherman's Band
44. Timber Hitch
45. Whipping
46. Rolling Hitch
47. Topsail Halliard Bend
48. Racking Hitch
49. Magnus Hitch

twines and even threads are our more modern means of fastening things together. In camping, on board ship, in lumber camps, about cranes and derricks and pulleys, indeed even as belts in factories and workshops, ropes and cords are in constant use. Farmers use ropes and cords in many ways. Sewing is done with threads, which in a certain sense, are cords. The very garments that we wear daily are made up of threads, woven together. The carpenter's overalls is made of threads, and so is his nail apron.

Common hemp is the fibre most often used for rope though cotton ropes are more flexible and very durable. Manila hemp is used for stiff heavy ropes.

Fig. 101

Sisal from central America is extensively used, especially in binder twine. Indian jute is also used, because of its cheapness. Threads and cords are usually made from fibres found in the leaves or stems of plants, or from animal wools.

The steps in making a rope, briefly, are these:

The fibres are combed; a few fibres twisted together to right, form yarn; then a few yarns twisted together to left, form a strand. Three strands twisted together to right, form a hawser; hawsers twisted together to left, form a cable.

A rope one-inch thick, may have as many as 300 individual threads in it, and the friction of the threads against each other gives the rope its holding qualities.

The apprentice should, not only read and study this lesson, but he should take a rope or cord and practice the making, first of the knots most useful to his trade, and then as many of the others as he can.

THE STEEL SQUARE

"Carpenters' Geometry"

(By L. Perth)

LESSON XVIII

HIP AND VALLEY RAFTERS

The main characteristics of hip and valley rafters as well as their relation to common rafters was thoroughly explained in the previous lesson. It will be well for the student to review the preceeding lessons before attempting to study the present chapter since the study of the hip rafter is more complicated than that of the common rafter and therefore will require a closer application.

Since the peculiarities of the hip and valley rafters are identical we will hereafter refer to the hip rafter only, with the understanding that what is said about the hip rafter is also true with reference to the valley rafter with a very few minor exceptions which will be taken care of when going into details.

It should be clearly understood that this treatise on the Steel Square was intended principally for the training of the practical builder in the fundamental uses of the Steel Square as applied to his daily work. When he becomes proficient in the application of this instrument to the solution of the general problems that he may be confronted with, the study of the numerous details in roof framing will be gradually introduced thus materially increasing his knowledge of the instrument without unduly burdening his mind with too many subjects at one time.

A comparison between the hip and common rafters is shown in Fig. 70 where a roof is represented having on one end a gable and on the other end a hip construction. This is a roof plan and therefore all members appear in a horizontal plane, i. e., if we were looking straight down.

Detail 1 represents the enlarged portion of the hip roof end where the hip rafters meet with the ridge board and common rafters. Detail 2 shows extreme point of the gable end where the com-

mon rafters frame into the ridge board. It will be noted that while the common rafters frame in ridge board the hip rafters must have in addition to the plumb cut also two side cuts in order to properly fit in between the common rafters and into the ridge.

FINDING LENGTH OF HIP RAFTERS

The methods used in finding the length of hip rafters are similar to those described in the previous lessons for common rafters. It should also be noted that these lengths are always calculated in connection with the common rafters of the same roof, i. e. the values of the common rafters are taken as a basis for figuring the lengths of the hip and valley rafters. Therefore it cannot be too strongly emphasized that it is very essential that the student form a clearly formulated idea in his mind as to the properties of rafters such as run, rise, length per foot run and total rise and the relations that exist between these values of common rafters and those of hip and valley rafters. These relations were plainly illustrated in Fig. 68 and 69 and the perusual of these diagrams will assist the student very materially in assimilating the material that is formulated below and covering the various methods employed in finding the length of hip and valley rafters.

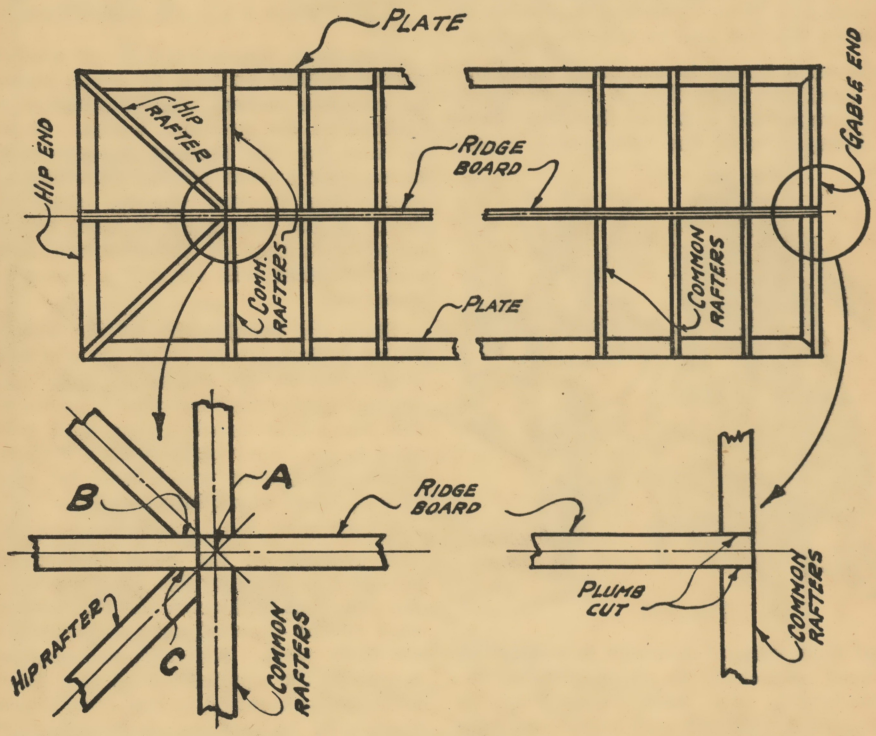


Fig. 70

We will consider a hip roof of a building 20 feet wide and having one third pitch or a rise of 8 inches per foot as shown in Fig. 71.

Method 1. This is one of the most common methods in use and is known as the "Length per foot run method." In calculating the length fo hip rafters by this method the "foot run" of the common rafter is taken as a basis.

The diagram in Fig. 72 represents the hip rafter as the diagonal of a square

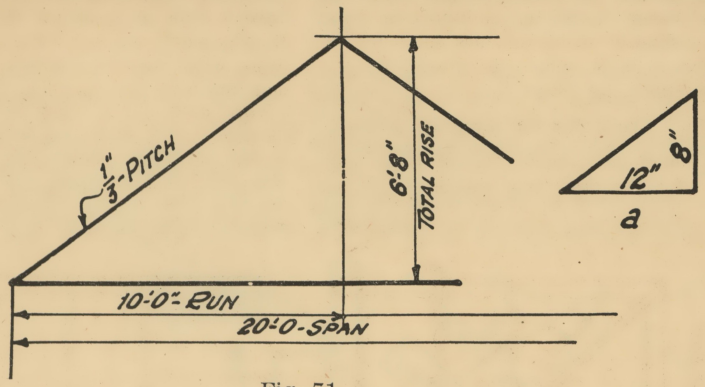


Fig. 71

prism or box. The dimensions of this prism correspond to those given in our problem.

In the previous lessons it was explained that the hypotenuse of a right triangle whose sides are 12 inches each equals to 16.97 inches—or commonly taken as 17 inches. Fig. 72-a.

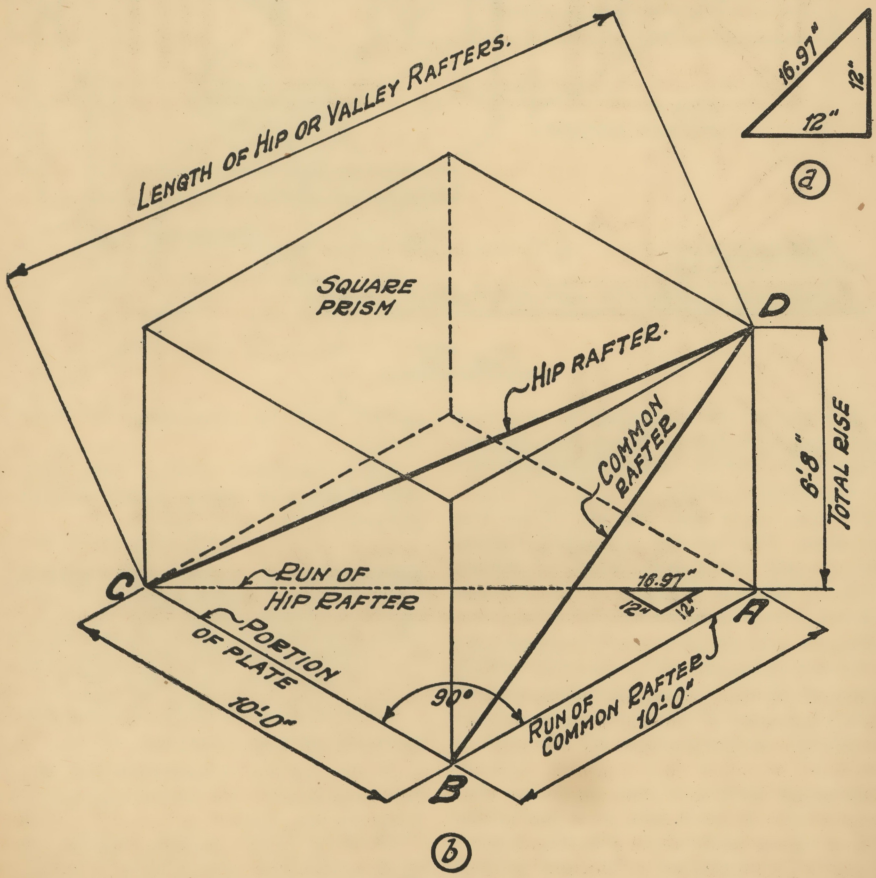


Fig. 72

It may be seen from the illustration that the run of the hip rafter is the hy-

potenuse of a triangle whose sides are the run of the common rafter and that length of the plate extending from the corner of the building to the first common rafter.

If we should take only 1 foot of run and 1 foot length of plate we will have a right triangle whose sides are each 12 inches long and whose hypotenuse is 17 inches.

The long side or hypotenuse in this small triangle is a portion of the run of the hip rafter corresponding to one foot run of common rafter. Therefore the run of hip is always 17 inches for every foot run of common rafter.

We also know that the hip rafter has the same rise as the common rafter, consequently the rise for each 17 inches of run of hip is the same as the rise per foot run of common rafter.

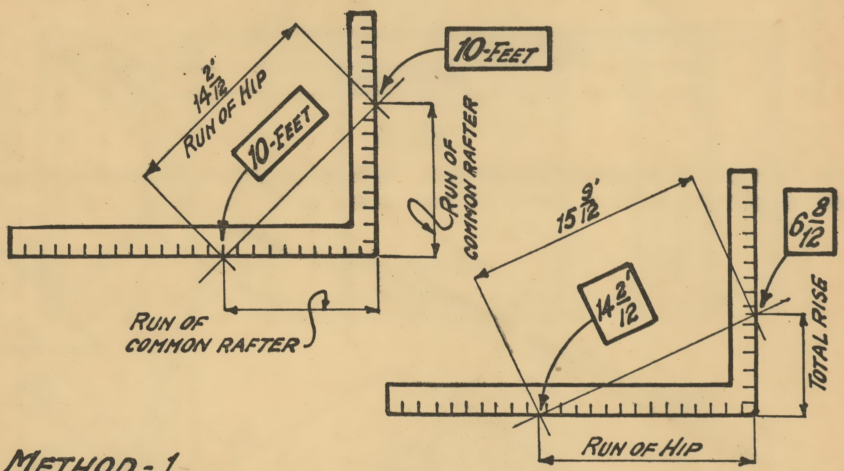
Since one foot of run of common rafter is equivalent to 17 inches run of hip rafter, in order to find the total run of hip it is necessary to lay off on blade and tongue 10″ and measure across with a rule.

Referring to Fig. 73 we find this distance to be 14 and two twelfths of an inch. Taking inches as feet the run of hip rafter will equal 14 feet and 2 inches.

Now to find the length of the hip rafter lay off 14 feet 2 inches on the blade and the total rise 6 feet 8 inches on the tongue and measure across these two points. This distance will be found to be 15 and 9 twelfths of an inch or 15 feet and 9 inches. It will be well to memorize the following rule which is applied to the above method:

Rule. In order to find the length of a hip or valley rafter lay off the run of the hip on the blade and the total rise of the roof on the tongue and measure across these points. The length of the rafter will be expressed in feet and inches.

Other methods dealing with the subject of hip and valley rafters will be explained in the next lesson.



METHOD - 1.
FINDING LENGTH OF HIP RAFTERS.

FIG. 73.

FRAMING A ROOF OF UNEQUAL PITCHES

(By Richard M. Van Gaasbeek, Pratt Institute, School of Science and Technology, Brooklyn, N. Y.)

UNIT INSTRUCTION SHEET NO. 5

I—Aim Of The Unit:

1—To lay-out jack rafter No. 13 with the steel square and fence and cut accurately to the lines.

[Note.] The rafters should fit in their respective places after sawing. No fitting with a plane or chisel is permitted. For practice purposes use size of stock recommended. Jack rafters No.

10, 11 and 12 are laid out exactly in the same manner as jack rafter No. 13, except that the run changes for each rafter.

II—Trade Terms:

Review previous units.

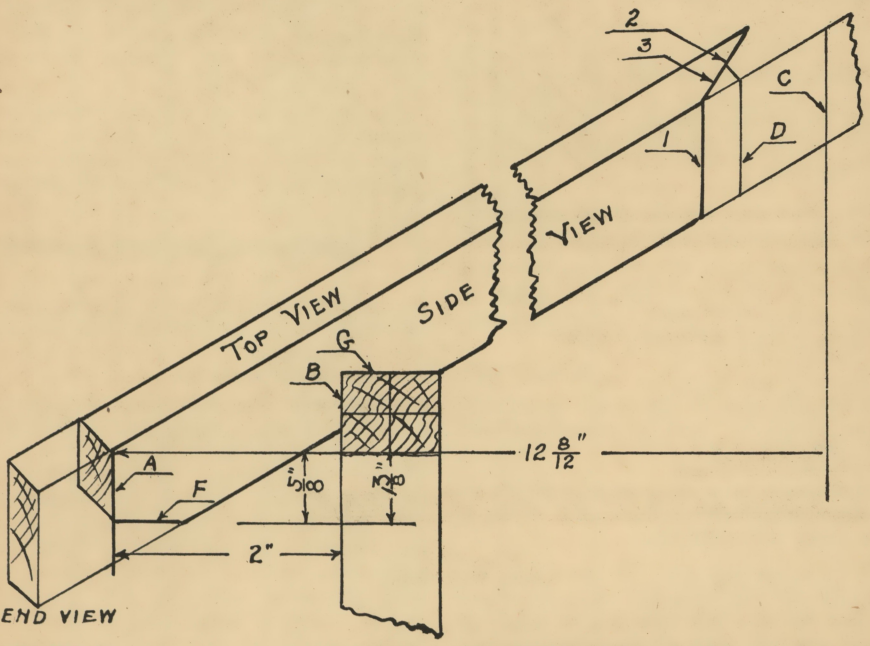
III—Tools And Materials:

1—The use and care of tools.
2—Materials required.
1—Review previous units.
2—22 lineal feet ⅜" x ⅞".

2—Set the fence and square to 7½" on the tongue and 12" run on the blade. Mark on the tongue for all plumb cuts and on the blade for all level cuts.

3—With the top edge of the stock to be used for the rafter toward the operator, press the fence firmly against the top edge, beginning at the extreme right with the tongue toward the left, mark the first plumb line (A) or facia line, drawing.

4—Measure the run of jack rafter No.



Key To Drawing.
A—Facia Line.
B—Wall Line.
C—Extreme length of jack to center of hip.
D—Cutting length of jack on center line.
F—Plancher Level.
G—Plate Level.
1-2-3—Cheek cut against the hip rafter.

IV—Specifications:

Projection, 2".
Facia, ⅝".
Pitch, 7½" rise in one foot.
Plancher level to plate level, 1⅜".
Jack rafters ⅜" x ⅞".
Hip rafters ¾" x 1¼".
Rafters spaced 2" on centers.
Runs to be taken from the lay-out, Unit No. 1, drawing.

V—Operations:

1—Determine rise in inches per foot run using the following formula.

Total rise in inches divided by run in feet equals rise in inches per foot run.

10 x 12 divided by 16 equals 7½" rise in inches per foot run.

13 on the lay-out, Unit No. 1, drawing, measuring from the facia line to the center line of hip A or 12 8-12".

5—Slide the fence and square along, pressing it firmly against the top edge of the rafter and measure on a level line from facia line (A), the run of jack rafter No. 13 or 12 8-12" and produce plumb line (C), the extreme length of the jack to the center of hip A, drawing.

6—Draw a full size section of jack rafter No. 13 on the lay-out, Unit No. 1, drawing, as shown in drawing. At the intersection of the outside edges of both rafters, square a line across the top edge of the jack cutting the center line as at (1). This gives three points on the center line (C), (D) and (1) that will be

used in determining the length and cheek cut for jack rafter No. 13.

7—Determine the cutting length of the jack on the center line by measuring forward on a level line from plumb line (C), one half the diagonal thickness of the hip measured on the center line of the jack rafter or (C-D), drawing, and produce plumb line (D), drawing.

8—Square plumb line (D) across the top edge of the rafter and locate the center as at (2), drawing.

9—To detemine the cheek cut so that the jack rafter will fit against the side of the hip rafter at the proper angle, measure forward on a level line from plumb line (D), drawing, the distance (D-1), drawing, and produce plumb line (1), drawing.

10—Draw top cut (3), drawing, from plumb line (1) through center point (2).

11—Begin again at facia line (A) and measure in on a level line, the width of the projection, 2″, and produce wall line (B) completing all plumb lines.

12—Measure down on facia line (A) from the top edge of the rafter the width of the facia, 5/8″ and produce plancher level (F).

13—Measure up on a plumb line from plancher level (F), 1 3/8″ and produce plate level (G), drawing.

14—Cut on line (A) for the facia, on line (F) for the plancher level, on lines (G and B) for the birdsmouth and on plumb line (1) and top cut (3) for the cheek cut against the side of hip A.

15—Cut two pair (right and left hand) this length.

16—Number for identification (No. 13) to correspond with the lay-out.

17—Layout the following jack rafters in the same manner changing the measurement of the run. The various runs must be taken from the lay-out, Unit No. 1, drawing. Jack No. 10, 3 2-12″, No. 11, 6 4-12″, No. 12, 9 6-12″.

VI—Questions:

1—Review previous units.

VII—References:

1—A Practical Course in Roof Framing—R. M. Van Gaasbeek, Pratt Institute, Brooklyn, N. Y.

The Eye

(By H. H. Siegele)

The value of the human eye is inestimable. It leads to more avenues of happiness than any other of the human organs. And yet it is one of the most delicate, if not the most delicate organ that is found in the human body. A carpenter must have good eyesight in order to do first class work. While we have heard of blind men working at carpentry, we feel sure that such cases are rare, and could not be called successful, if compared with the work of skillful carpenters who are blessed with the boon of good eyesight.

Nature has given the eye protection; the lid, the lashes and eye-brows. These, under complete natural conditions, would perhaps protect the eye against most of

the dangers coming to the eye in a natural way. But civilization has brought with it modern ways of living, and hence the eye is exposed to many more and even greater dangers than it was in primitive times. Carpentry contributes a number of these dangers to the eye; among them are: Flying nails—we have personally known two carpenters who lost the sight of one eye through this danger. Flying chips of both steel and wood. Just a few years ago in our home town, a carpenter lost the sight of one eye by a flying chip of steel. No doubt, many of our readers know of similar instances; however, we have mentioned these two as a matter of warning. Too often we forget that there is any real danger surrounding us when we are working and everything goes well, and so it is good to be reminded in this way.

Perhaps one of the most annoying little things that can happen to the eye, is that of some foreign matter accidentally coming into it. It may be a very small particle of grit, cinder, sawdust or something else equally as annoying. To remove such annoying substances from the eye without adding to the pain, take a piece of human hair and fasten it to a tooth pick, match or something similar that will answer the purpose, in the manner shown by the illustration. With such a hair-loop any loose foreign matter can easily be removed from the eye.

SIDE CUTS HIP AND VALLEY

PLUMB	BASE	SIDE	CUT	INCHES.
4	17	12	12 3/8	17.472
5	17	12	12 9/16	17.712
6	17	12	12 11/16	18.024
7	17	12	12 7/8	18.384
8	17	12	13 1/8	18.792
9	17	12	13 7/16	19.248
10	17	12	14	19.728
11	17	12	14 3/16	20.256
12	17	12	14 11/16	20.808
13	17	12	15 1/8	21.384
14	17	12	15 1/2	22.008
15	17	12	15 15/16	22.656
16	17	12	16 9/16	23.352
17	17	12	16 3/4	24.048
18	17	12	17 5/16	24.744

REDUCED EQUIVALENTS

JACKS

PLUMB	BASE	SIDE	CUT	HYPOTHENUSE INCHES
4	12	12	12 5/8	12.648
5	12	12	13	13.008
6	12	12	13 7/16	13.416
7	12	12	13 7/8	13.896
8	12	12	14 7/16	14.424
9	12	12	15	13.000
10	12	12	15 5/8	15.624
11	12	12	16 1/4	16.272
12	12	12	16 31/32	16.968
13	12	12	17 11/16	17.688
14	12	12	18 7/16	18.432
15	12	12	19 1/4	19.200
16	12	12	20	19.992
17	12	12	20 13/16	20.808
18	12	12	21 5/8	21.624
SAW	SAW		SAW	

CUTS FOR JACK RAFTERS AND ROOF SHEATING, SAME PATCH.

TO SQUARE A BUILDING EMPLOY ANY NUMBER + ITSELF, X .707 = HYPOTHENUSE.

(Copyright)

THE RAPID RAFTER CALCULATOR

(By Otto L. Engstrom)

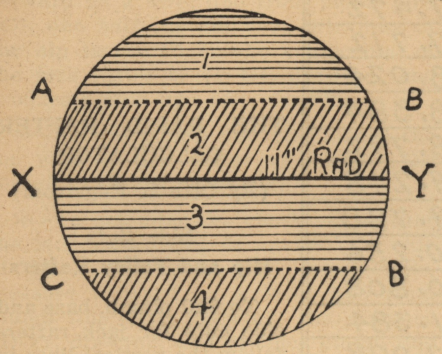
Side Cuts Hip and Valley Rafters

To find plumb, base and side cuts for jack rafters follow the vertical lines in above column and note the word "saw" below the column. Example. Side-cut for a 4-12 pitch set square to 12-12⅝ mark on the 12⅝" side. This "cut" fits against the hip of corresponding pitch.

The side cut for hip and valley is extracted the same way. The last column marked inches is the diagonal, or, hypothenuse of right angled-triangle in a one foot run. Hypothenuse of 12-12 is 17 or real close 16.968 but for convenience, it is called "17". Thus, we employ 17 as "base" number on a hip or valley being a diagonal rafter. A framing square is 16" times 24" for convenience 17 is reduced to 12 on on the sidecut scale. Note "reduced equivalents."

A Radius Problem

Herewith is a practical problem I have not solved and would appreciate the assistance of our fellow brothers' solutions.



Find Lengths of A B and C D.
Find Areas of 1-2-3-4.

Given a circle with 11" radius to be divided into four equal areas. Also find the length of each division.

(To be solved mathematically.)

Jos. E. Truncellito,
L. U. No. 299. Union City, N. J.

Find The Cubic Content

The problems and solutions of them are interesting, I have been following them for a long time. Most of them are very good practical ones, but some are out of line, only puzzles.

I would like to submit one, that I have failed to notice published before, and it is not a puzzle, but a practical problem.

Find the cubic contents (solidity or volume) of a spherical segment, whose diameter of the base is 13′ 8″ and height 9′ 3″. Also find the area of the curved surface, (base excluded).

Ivar Tujunen,
L. U. No. 1657. Corona, L. I., N. Y.

Porch Inclosing Information Wanted

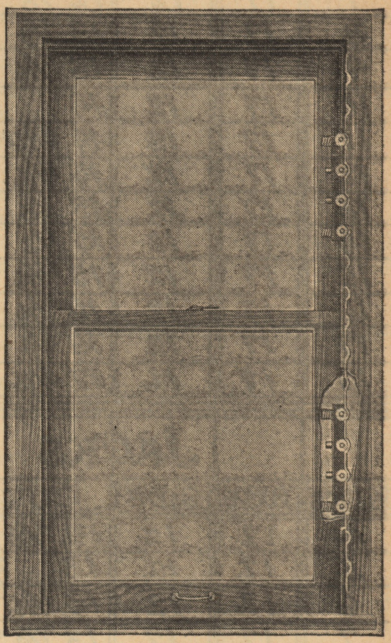
Will some brother give me some information on the method of inclosing a modern 6 room row house porch, with double hung sash from sill down, to be panelled. Square straight columns to be used and side lights at doors? How would the size of frames be arrived at?

We will assume that the house has a 16 ft. front and is 9 ft. from floor to soffit, a 36 in. door centered on a step 4½ ft. wide.

P. R. Aves, Camden, N. J.

Faultless Sash Holder and Frames

A new automatic sash holder that eliminates window boxes, cords, weights, pulleys and weatherstrips has been announced by the Faultless Sash Holder Company, Inc., Indianapolis, Indiana. This device consists of a patented frame without the box and an interlocking recessed track which runs up and down the



entire length of the window jamb. Hard rubber rollers backed by compression springs run into this track.

It is stated that this window cannot stick or bind, vibrate or rattle and there is nothing in the device to get out of order.

It is pointed out that it leaves no pocket for cold air or dirt accumulation and makes the window practically air-tight, dirt-proof, fool-proof, trouble-proof and has closed the road to waste.

Setting Posts

(By H. H. Siegele)

When I was but a lad, on my father's farm, I watched a carpenter put up a hay shed. I remember how I wondered what the carpenter was going to do in order to get the tops of the hay-shed posts to line up. The ground was not even, nor were the posts holes dug exactly the same depth. At first I thought

that he would set the posts into place and then use a ladder, and with a saw cut off the tops so they would be in line. (I have seen carpenters doing that very thing, during my experience as a carpenter). Here is what the carpenter did, who was building the hay shed for my father. He drove a stake at the high point, and another at the low point; then he streched a line from one stake to the other in such a manner that it was on a level; (see Fig. 1). This done, he determined the distance the posts were to project above the line, which, on the drawing, I have assumed to be 12 feet. After squaring the tops of the posts, he measured off 12 feet on each of the posts, as shown by Fig. 2. Then he took the distance from the line to the bottom of the post hole, say, number 1, Fig. 1, which is 3 feet. This distance he transferred to the post to be set into hole number 1, adding 3 feet to the 12 feet making it 15 feet, and cutting the bottom end of the post at the point indicated at 1, Fig. 2. In the same manner he carried the distance between the line and the bottom of hole number 2, adding it to the 12 feet of the post to be set into this hole, and cutting off the post at the point indicated at 2, Fig. 2. Then the post for hole number 3 was cut; and for number 4 and number 5. The other row of posts, and the posts

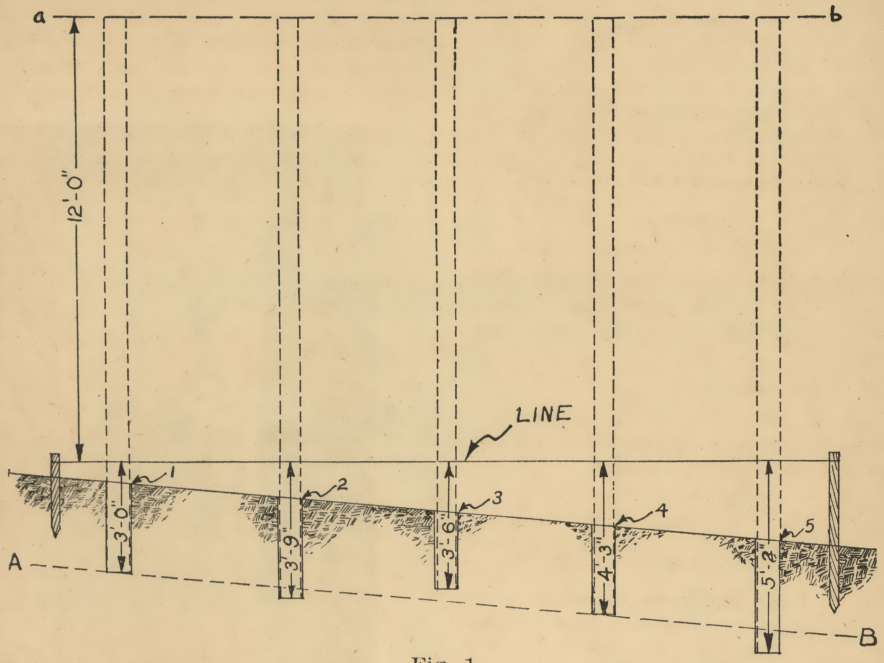


Fig. 1

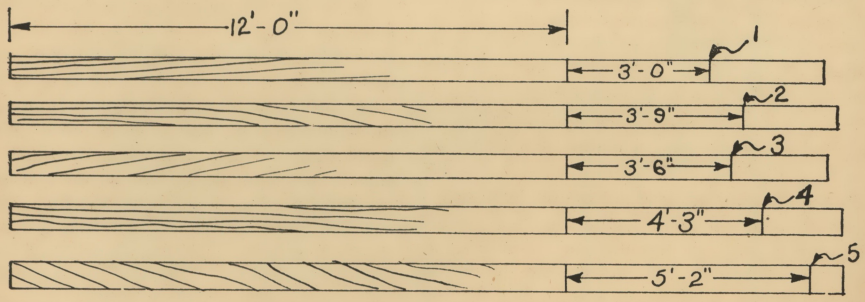


Fig. 2

for the ends of the hay shed, were cut in the same way. When the posts had all been set, the tops lined, and were ready for the plate, as will be seen by referring to the dashed line between a and b, Fig. 1. I am showing the holes, on Fig. 1, as being of various depths, so as to make clear that this method will work no matter how deep the holes are dug, or how uneven the ground may lay. I have put a dashed line, A-B, to show the difference in the depths of the holes.

Harmony

(By H. H. Siegele)

I was putting on door checks when the foreman, a middle-aged man, came around. I thought that I was doing fine,

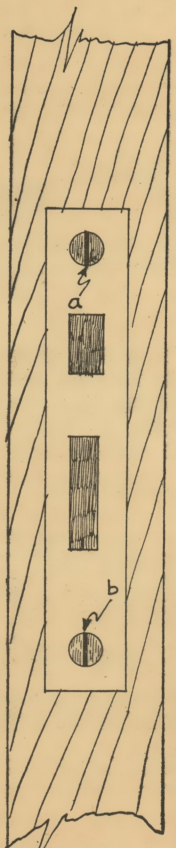


Fig. 1

because I had made good progress. But the foreman called me to a door check I had just finished putting on. "Can you see anything wrong with that?" he asked me . . . But I couldn't see anything wrong with it. "Well," he said, "the slots of the screws should show harmony." Then he went on and told me how the slots of the screws should be kept running in the same direction; just as I am showing them on the draw-

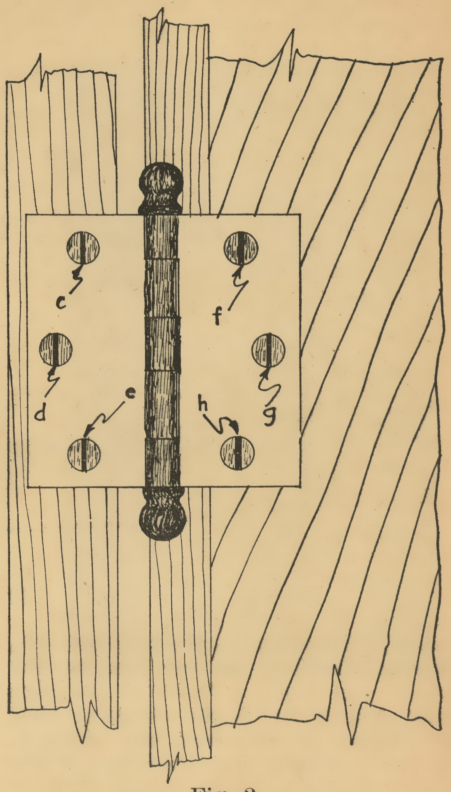


Fig. 2

ings. Fig. 1 shows the face of a mortised lock. It will be seen that the slot of the screw pointed out at a, is in the same direction as the slot of the screw pointed out at b. Turning to Fig .2, where I show a loose-pin butt fastened to a door and to the door jamb. Here again the slots of all the screws, namely, c, d, e, f, g and h, have been kept in a perpendicular line. That is the harmony the foreman was talking about.

With but a few exceptions, when I have put on hardware since, I have the slots of the screws in harmony, and I find it makes a much more agreeable looking job. It does not take more than about a quarer turn, after the screw has been tightened, either forward or back-

ward, to get the slot of a screw perpendicular. A full quarter turn is the exception; usually it requires less than a quarter turn.

The illustrations show a lock and a butt, but the screws of the escutcheons and the strike plate of the lock should harmonize with the rest. The screws in the window hardware should show this harmony, and the cupboard hardware.

The Right Way

(By H. H. Siegele)

The two principal things that determine whether a thing is right or wrong; we have just mentioned are the ones that in most cases carry the decisive

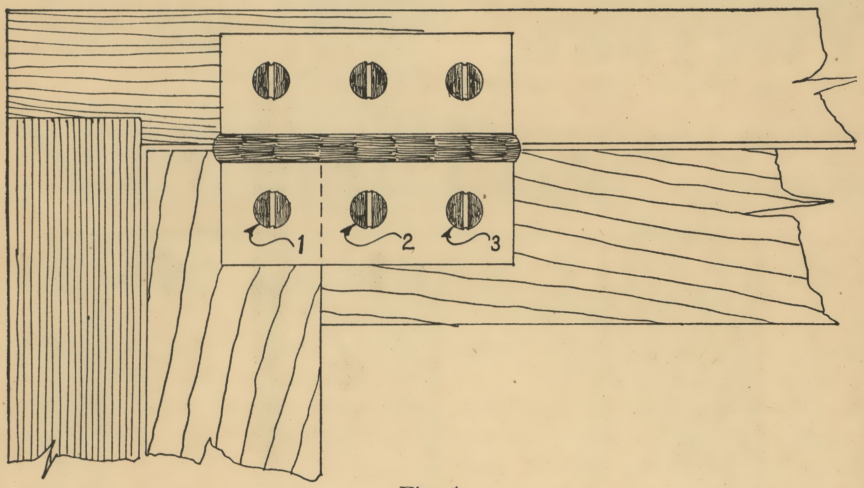


Fig. 1

are, first service, and second appearance. There are other circumstances that usually enter into such matters, but the two weight. Sometimes appearance carries more weight than service does, and at other times it is just the reverse. In the

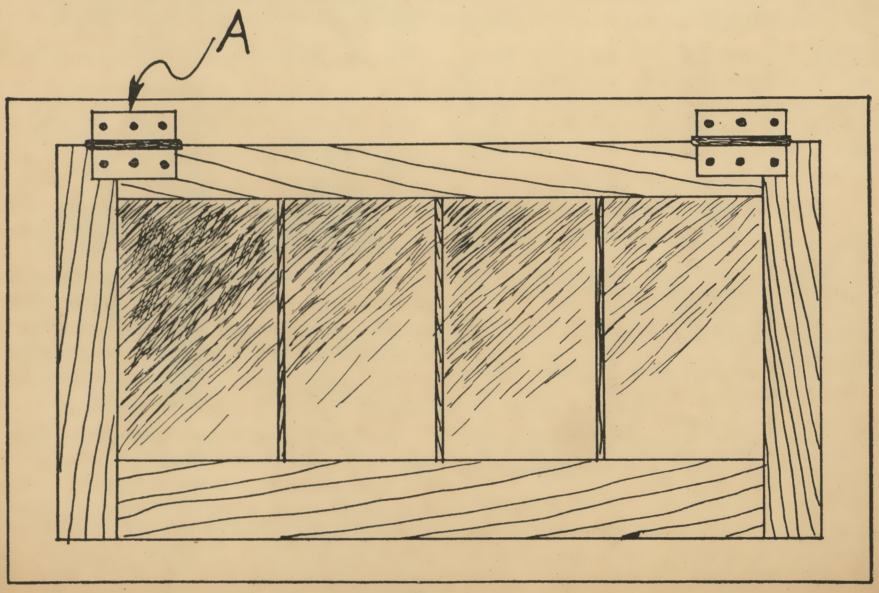
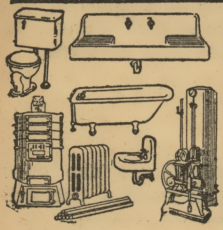


Fig. 2

PLUMBING - HEATING
WATER SYSTEMS



SAVE UP TO 40%

Wonderful bargains—everything guaranteed. Full line of plumbing and heating supplies. Hot water, steam heating plants and fixtures and water systems at big savings.

Install Them Yourself

Finest materials all brand new and perfect. Tell us your wants and mail us a rough sketch of your rooms.

SEND FOR PRICE LIST

B. Karol & Sons Co.,
800-01 So. Kedzie Ave., Chicago

matter we are dealing with below, service is the main factor, and on it is based the matter of locating the hinge.

Fig. 1 shows a corner of a cellar sash and one of its hinges. The location of the hinge is what we want to call attention to. It will be noticed that screw number 1, is to the left of the joint between the upper rail and the left style, which is indicated by dotted line, and screws number 2 and 3, are fastened onto the upper rail. This is as it should be, for this prevents the joint between screw number 1 and screw number 2 from opening and holds the sash in a rigid position. Fig. 2, A, shows the same hinge, but on a smaller scale drawing; while Fig. 3, shows the hinges fastened in the wrong way.

It will be seen, on comparing Figs. 2 and 3, that fastening hinges to cellar sash in the way shown by Fig. 1, is not only more substantial, but it makes a better appearance as well.

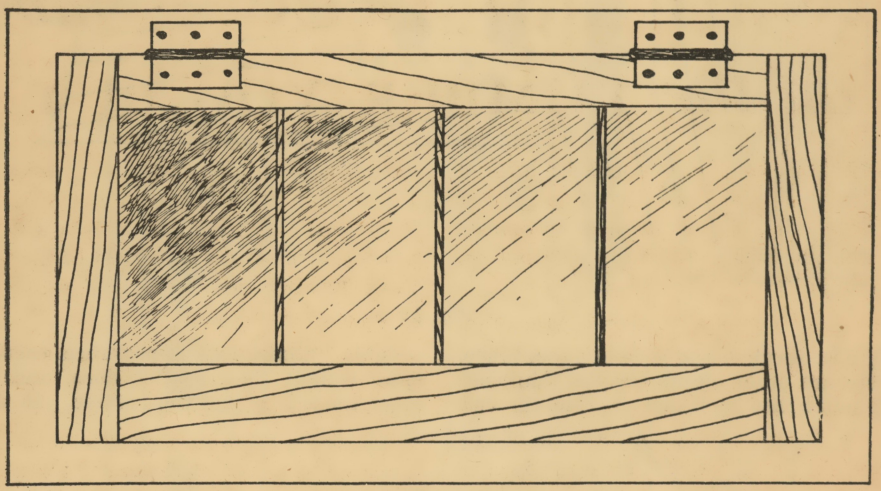


Fig. 3

Little Things

It takes a little muscle and it takes a little grit,
A little true ambition with a little bit of wit.
It's not the "biggest" things that count and make the "biggest" show;
It's the little things that people do that make the old world go.
A little bit of smiling and a little sunny chat,
A little bit of courage to a comrade slipping back;
It's not the "biggest" things that count and make the "biggest" show;
It's the little things that people do that make this old world go.
It takes a kindly action and it takes a word of cheer
To fill a life with sunshine and to drive away a tear.
Great things are not the "biggest" things that make the "biggest" show;
It's the little things that we may do that makes this old world go.

—Author Unknown.

An Arab Proverb Says:

Men are four.

He who knows not and knows not he knows not. He is foolish. Shun him.

He who knows not and knows he knows not. He is simple. Teach him.

He who knows and knows not he knows. He is asleep. Wake him.

He who knows and knows he knows. He is wise. Follow him.

When union men go to sleep at the switch the open shoppers come to and get a new lease of life until the union men wake up again.

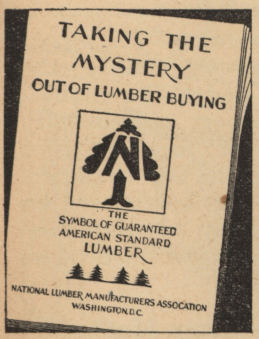
The National Lumber Manufacturers Association guarantees, to the dealer, that lumber bearing its Tree symbol is of the quality indicated thereon by the official marks. He can pass on to you the benefits of this guarantee.

Look for the "National Tree" *symbol on the* LUMBER YOU BUY

THE next time you buy lumber tell your dealer you want "National Tree" lumber — boards marked with the Tree symbol on the end.

The National Lumber Manufacturers Association guarantees, to the dealer, that each piece of lumber bearing its trade-mark — the "National Tree" symbol—is of the quality indicated thereon by the official marks of the expert grader . . . that it is carefully manufactured "American Standard Lumber from America's Best Mills." Your lumber dealer can pass this guarantee on to you!

You will benefit by demanding this trade- and grade-marked lumber—people everywhere are reading about it . . . demanding it in their houses and in their carpentry work. Send us your dealer's name if he doesn't carry "National Tree" lumber.



Send Coupon Today

for FREE BOOKLETS

"Taking the Mystery out of Lumber Buying" is the name of the booklet that tells the complete story about "National Tree" lumber—you will want to read it. Another, "Modern Home Interiors" is full of practical suggestions that will open up new jobs for you. Mail the coupon today.

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Washington, D. C.

New York, Boston, Pittsburgh, Indianapolis, Chicago, Minneapolis, Kansas City, Memphis, New Orleans, San Francisco

National Lumber Manufacturers Association
Dept. 4354, Transportation Building,
Washington, D. C.

Gentlemen: Please send me "Taking the Mystery out of Lumber Buying" and "Modern Home Interiors."

Name .....

Street .....

City .....State .....

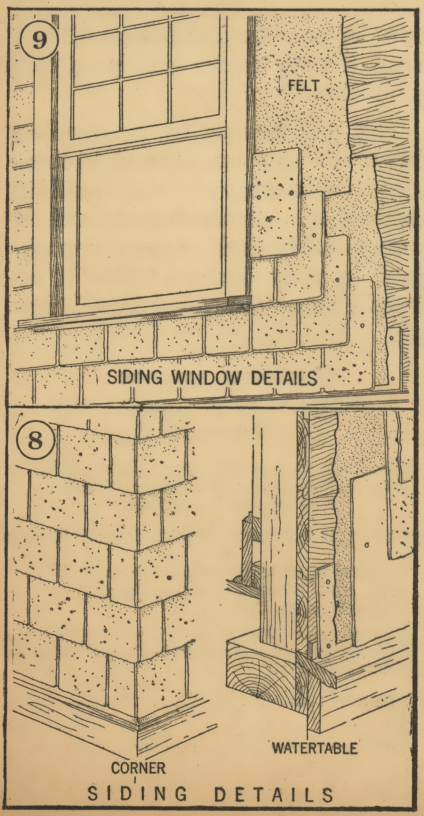
HOW TO LAY JOHNS-MANVILLE ASBESTOS SHINGLES (PART SEVEN)

IN the May issue of the Carpenter we explained the simple manner in which Johns-Manville American Method Asbestos Shingles can be laid on re-roofing jobs and the value and profit that there is in this work. More and more home owners are realizing the advantages and economy of re-roofing with J-M Shingles.

This article will be devoted to the methods used in siding and re-siding with American Method Shingles.

Siding—American Method Shingles

Consider a siding job as a roofing job in which the surface to be shingled is vertical, and the difficulties, which are more feared than actual will disappear. On new siding work, lay Johns-Manville Asbestos Roofing Felt—15 pound or heavier—over the sheathing before laying the shingles, and nail it down through strips of lath. Start at the water table, using a cant strip and eaves starters as shown in Figure 8. After the row of eaves starters is in place, drop the lower edge of the roofing felt over them and then lay the first course of full-sized shingles, breaking joints with the eaves starters in exactly the same way as on a roofing job.



Siding work is almost always done by laying the shingles with the butts aligned. When staggered butts or rough and irregular siding is desired the main siding shingles are laid in the same way as was shown in the March issue on pages 66 and 67.

Figure 9 shows the construction to be followed around window and door openings. Note that this shows only the side and undersill construction. The top of the window or door is treated in the same way as a water table. It is advisable to use a small strip of metal flashing across the window top.

At the facia moulding—the top of the side wall of the house—the shingles extend under the moulding. Outside corners are usually handled as shown in Figure 8 though, if desired the hip construction as shown in the April issue on pages 64 and 65 may be used. Inside corners are always mitered as shown in Figure 10.

Re-siding—American Method Shingles

On re-siding jobs the preparation of the surface is different. Any finish on outside or inside corners which projects beyond the old siding, must be removed and new strips set in to bring these points

level with the old siding, (See Figure 10). The simplest construction at the water table is to let the Asbestos Shingles form their own water table, using the old water table to form the cant, though the construction shown in Figure 10 is often used. At window and door openings, follow the constructions shown in Figure 10 and 9. At the underside of the sill the shingles are laid flush and a strip of quarter round moulding used to cover their upper edges (See Figure 9). At the sides of the windows where the new shingles extend beyond the outside casing, a moulding is set as shown.

Inside and outside corners are treated in the same manner as new work.

At the facia there are various constructions possible depending upon the conditions of the old work; the two following will be found the simplest. Remove the old facia and reset it after the asbestos shingles have been laid, so that it will cover them in the same manner as in Figure 10. The second, which is sometimes simpler, is to lay the shingles flush with the old facia and cover the joint with a strip of moulding of the proper size and shape.

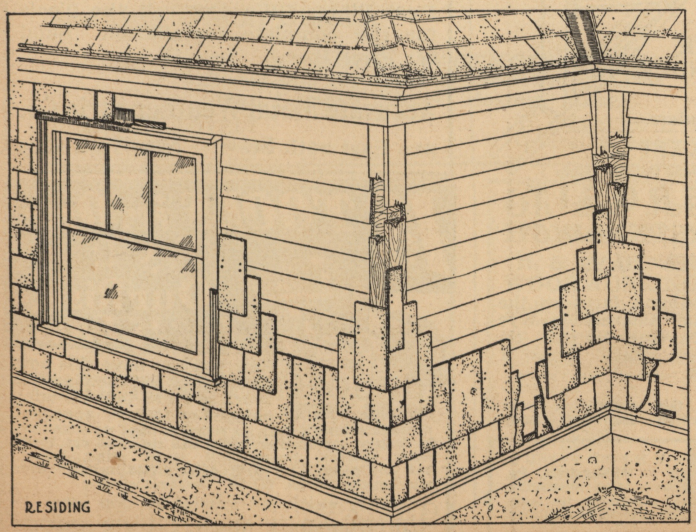


Fig. 10.

There is Money in Re-Siding Jobs

The amount of advertising and general publicity that fireproof Shingle construction has been given has sold home owners everywhere on the advantages of Johns-Manville Rigid Asbestos Shingles.

Because Johns-Manville Shingles can be put on right over old siding as well as old roofs, without the expense and annoyance of taking off the old shingles it is not very difficult to convince the man whose house needs new siding of the general advantages of re-siding the Johns-Manville way. Such construction provides double protection to the sides of the house—the old wooden shingles form a valuable insulation which makes the house cooler in the summer and easier to heat in winter with less fuel. This is an important fact that should be emphasized whenever re-siding is under consideration.

J-M Rigid Asbestos Shingles offer enormous possibilities as a siding material. Attractive color combinations can be worked out so that both roof and sides will be a harmonious unit. Re-siding and re-roofing with J-M Asbestos Shingles will transform an old dilapidated house into a modern home of beauty and will increase its resale value.

For further information and for a copy of the Carpenters' Hand Book write to Johns-Manville Corporation, 292 Madison Avenue, New York City.

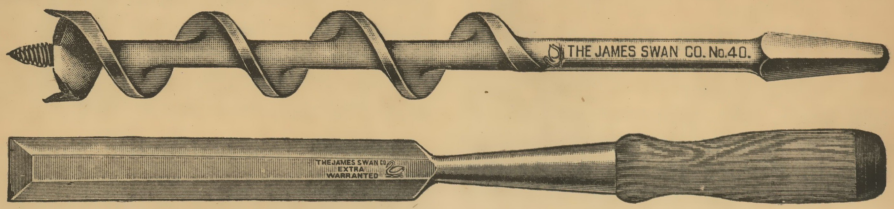
THE JAMES SWAN CO.

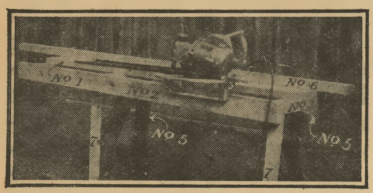
SEYMOUR, CONN.

NEW YORK OFFICE: 28 WARREN ST.

TRADE MARK TRADE MARK

MANUFACTURERS OF CARPENTERS' TOOLS





FRAMING DEVICE FOR TRIGGER SAWS

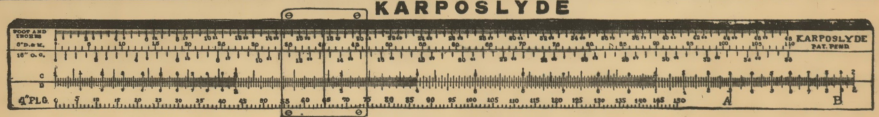
This device has the same relation to the trigger saw as the miter box and steel square have to the common hand saw—only on a larger sale. It is not necessary to carry a heavy saw around all day. Let your framing device be exhausted at the end of the day and not yourself. A portable saw rig on a carpenter trestle for rough work and a miter box for finish work.

No. 1. Table. No. 2. Track to either clamp or run device back and forth on when framing. No. 3. Track and table joined together. No. 5. Carpenter trestle.

Fits all makes of trigger saws. These devices are sold on one week's trial. Write for literature. Agents wanted.

C. T. EARHART, 244 Atwood Street, Pgh., Pa.

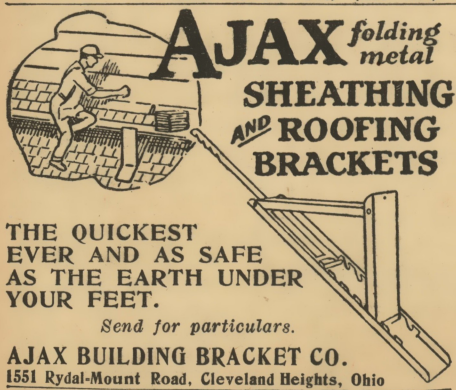
KARPOSLYDE



A CARPENTER'S SLIDE RULE

This marvelous device enables the ordinary carpenter to take off quantities of lumber from plans or buildings under construction with uncanny ease and accuracy. Estimators figure plans in few minutes. Simple as ABC. Used by Estimators, Contractors, Lumber Men, etc. Write for circular.

KARPOSLYDE CO., (Not inc.) 7931 S. State St., CHICAGO, ILL.



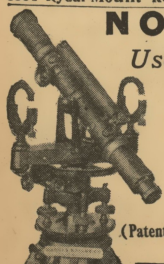
AJAX folding metal SHEATHING AND ROOFING BRACKETS

THE QUICKEST EVER AND AS SAFE AS THE EARTH UNDER YOUR FEET.

Send for particulars.

AJAX BUILDING BRACKET CO.

1551 Rydal-Mount Road, Cleveland Heights, Ohio



NO DEPOSIT!

Use a "STERLING"

10 DAYS

Get first-hand facts on the "Sterling" Convertible Wye Level. No cost. No risk. No obligation. Easy terms if you buy.

(Patented) **Pin this coupon to your letterhead and mail today**

WARREN-KNIGHT CO.

136 N. 12th St. Philadelphia, Pa.

Send me FREE Bulletin K-36 with large illustration of "Sterling" Convertible Level, describing its many uses and giving details of free trial offer and easy terms.

NAME ---------- ADDRESS ----------

METAL WEATHER STRIPS

TRADE MARK **ACCURATE** REG. U.S. PAT. OFF.

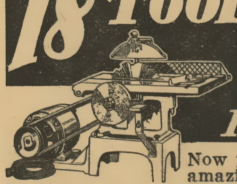
Made of Zinc, Copper, Bronze and Brass

We carry a complete stock of Plain Rib, Corrugated and Double Rib, Brass Saddles, Thresholds, Brass Channel Water-Bar, Spring Bronze, Dust Plates. We also sell the Tools for the complete installation. Send for Price List.

Accurate Metal Weather Strip Co.

310 East 26th St. New York City

18 TOOLS in One! Try It at Our Risk For 15 Days!



Now you can have this new amazing 8 in. combination bench saw (18 tools in one) shipped on 15 days' approval at manufacturer's risk. A complete ideal machine shop for factory, workshop or home; will rip, cross cut, bevel, miter, mortise, groove, drill, tenon, grind, rabbet, buff and polish. 1-3 H. P.-A. C. motor included with attachments. Price $27.50. (*without motor*).

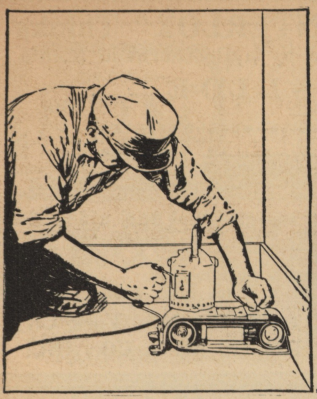
DEALERS WANTED

Write quick for special 10 day offer

Scott-Bansback Mach. Co.

170 So. Clinton St., Chicago

$27.50



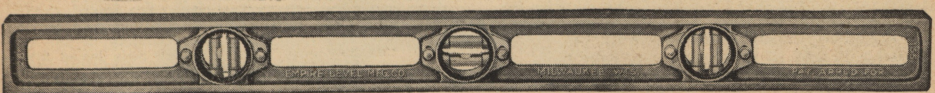
Watch it work

Edging Attachment Sands Butt Ends of Floor with the Grain.

Equipped with the Edging Attachment, the SUPER TAKE-ABOUT SANDER will do your complete floor edging job. No laborious handscraping—no ugly knife marks—no time lost. SUPER TAKE-ABOUT works easily, rapidly, making it unnecessary to stop and take long rests or sharpen knives. Smooth, even action of belt gives a finish the same as rest of the floor. When not used for edges, it saves time on your bench work.

Write for Interesting Bulletin.

THE PORTER-CABLE MACHINE CO.
1700 N. Salina St. Syracuse, N. Y.



No. 1E Aluminum Level.
24"—$6.65
26"—$7.00
28"—$7.35
30"—$7.70
POST PAID

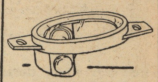
Here's Your EMPIRE LEVEL

The famous Level with the patented EMPIRE interchangeable vial cases—the feature that makes it possible to change broken glasses quickly and easily. Compare this wonderful level with any other and appreciate its real quality. It's the level for you.

EMPIRE LEVEL MFG. CO., MILWAUKEE

Free

If you send us your order mention this magazine and we will send you a genuine Empire Vial case free.



Buy Union Stamped Shoes

We ask all members of organized labor to purchase shoes bearing our Union Stamp on the sole, inner-sole or lining of the shoe. We ask you not to buy any shoes unless you actually see this Union Stamp.

BOOT & SHOE WORKERS UNION — UNION STAMP — Factory

Boot & Shoe Workers' Union
Affiliated with the American Federation of Labor
246 Summer Street, Boston, Mass.

COLLIS LOVELY
General President

CHARLES L. BAINE
General Secretary-Treasurer

WRITE FOR FREE
SAMPLES AND PRICES
ON
--LIBMASTIC--
CAULKING COMPOUND
S. LIBMAN,
PITTSBURGH, PA.
YOU WILL BE SURPRISED

On the Job, or in Your Home Shop—Make Money With H & A BENCH TYPE WOODWORKING TOOLS

PORTABLE, electric, high grade power tools that will enable you to crowd a week's hard hand labor into one day of pleasant and highly profitable effort. Surprisingly low in cost. Write for catalog of

Band Saws
Rip Saws
Jointers
Lathes
Swing Saws
Shapers
Scroll Saws

HESTON & ANDERSON
Fairfield, Iowa
1106 Market St.

Double Your Income Selling and Installing Weatherstrips

The rain and dust of spring and summer create a demand for protection around doors and windows. All during the year other carpenters are adding to their income by selling and installing Federal Metal Weatherstrips. Every building—large or small—in your town is a prospect and one sale leads to many others. Write today for details of our attractive agency proposition.

FEDERAL METAL WEATHER STRIP

Federal Metal Weather Strip Co.
4540 Fullerton Ave. CHICAGO, ILL.

The "INTERLOX" Thinks

Invented by a Brotherhood Man

SLIDE—

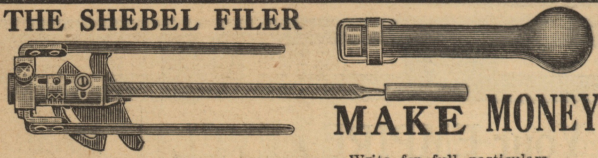
This Rule for
INSIDE MEASUREMENTS

No "guesswork" when the Master Slide Rule is used—always accurate, exact, safe. Its ease and utility for ascertaining exact measurements in hard to get at places are known to your mechanic trade. The MASTER is the last word in rules.

Send for details of the entire Master Line

815C East 136th St., New York City
MASTER RULES MFG. CO., INC.

THE SHEBEL FILER

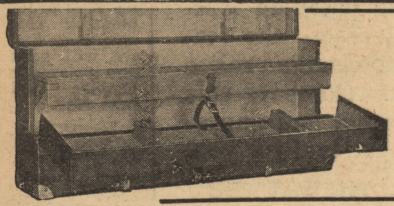


MAKE MONEY

FILING SAWS. It's easy. Get a Shebel Filer and you at once become an expert filer. Nothing to it. Any one can get a high class job of filing with it. Produces a better saw than can be obtained in any other way. It's a brand new idea in a Saw Filer. Send for full particulars. Some say it is worth $100.00. The price is only $5.00.

Write for full particulars

ANTHONY P. SHEBEL. 322 Reed St., MILWAUKEE, WIS.



OPEN TOP CARPENTERS CASE

Sheet aluminum covered chest which is a combination of good looks, strength and durability.

Size 32x15½x7, $10.00 Delivered

Send for complete catalogue of tools

J. M. Waterston 428 Woodward Ave. Detroit, Mich.

To-morrow,

while you labor with your saw

think how much easier you can do the job with the ALTA Electric Handsaw. Then ask your dealer or send us the coupon for more information.

Depth Adjustment
Tilting Base
Three Sizes

MORTISERS — PLANES — SAWS

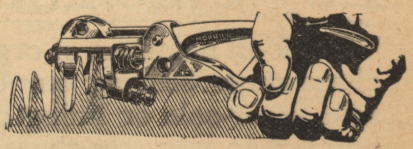
WAPPAT GEAR WORKS, INC. 41 No. Braddock Ave. Pittsburgh, Pa.

Division of Simonds Saw and Steel Company

Name .....

Company .....

City .....



MORRILL SAWSETS

Set Saws Just Right

"Saw Points" Telling You "How To Joint, Set, And File Saws." Sent Free Upon Request.

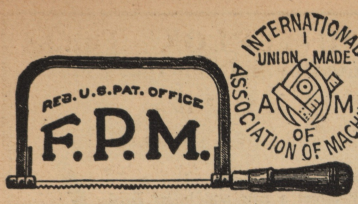
CHAS. MORRILL, Inc.
96 Lafayette St. New York.

FREE-O-DUST

FASTER-CLEANER-BETTER
FLOOR SURFACING
with
THE NEW IMPROVED ONE MAN "FREE-O-DUST SUPER SURFACER"

Write today for
FREE BOOKLET
with prices and information on time payment plan
and
FREE TRIAL OFFER

Electric Rotary Machine Co.
3835 W. Lake St., Chicago, Ill.



THE SAW FOR EVERY USE

NOT NEW BUT BETTER HIGHEST QUALITY LONG LIFE

The steel pin swedged in blades insures rigidity and prevents breakage.

YOUR PROTECTION IS MY REPUTATION

THERE IS A SATISFIED USER IN YOUR LOCAL. ASK HIM. IF YOUR DEALER DOES NOT HANDLE WRITE US

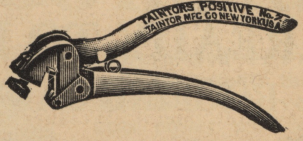
$1.00 for saw and seven blades.

F. P. MAXSON

3722 N. Ashland Ave. CHICAGO, ILL.

ONE MILLION MEN Have Used TAINTOR POSITIVE SAW SETS

Are You One Of Them?



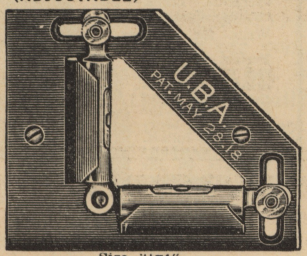
Sold By Leading Hardware Dealers Everywhere
Send for Book: "Care of Saws," free to members of The Brotherhood.

TAINTOR MFG. Co., 95 Reade St., New York

THE UBA STRAIGHT EDGE LEVEL

(ADJUSTABLE)

One of the most useful tools employed by a carpenter for leveling, plumbing, pitches and grades. Finished rust proof with clear or green double marked bulbs.



Size 3½x14"

PRICE $1.25

At your hardware dealer.

Mfg'd. by the

Union Level Mfg. Co.

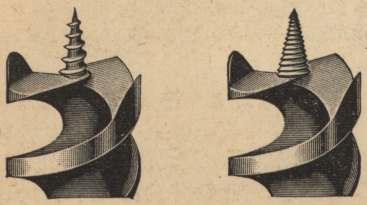
4649 S. Ashland Ave., CHICAGO, ILL.

IN CANADA

Walkerville Hdw. Co., Ltd., Walkerville, Ont., Canadian Distributors.

Genuine

RUSSELL JENNINGS AUGER BITS



Single Thread Screw Point for Quick Boring.

Standard Double Thread Screw Point.

The Original Extension Lip Auger Bits in use since 1855. Every Carpenter should Complete his kit with these two styles. Ask your dealer to show you these.

The Russell Jennings Mfg. Co.

CHESTER, CONN.

CARPENTERS

AUDELS CARPENTERS & BUILDERS GUIDES

Every Carpenter, Builder, Woodworker, Mechanic and apprentice should own these guides. These books answer hard questions and explain easy methods of doing better work. Easy to read and understand. Fully illustrated with 3700 diagrams and pictures showing modern working methods and plans. A complete home-study course for the apprentice; a quick, ready-reference for the journeyman. (*1600 pages, 4 volumes, flexible binding, gold edges, pocket size.*)

TRADE INFORMATION

Every job covered—valuable, up-to-date information on:—**How to Use The Steel Square, Care of Tools, Saw Filing, Joinery Work, How to Calculate and Draw, House Framing, Stairs, How to Make Furniture, Lay out work and Foundations, Interior Trim, Outside Work, Roofing, How to Paint**—*with thousands of new short cuts and good ideas.*

SHIPPED FREE

Not a cent to pay until you see the Guides. No obligation to buy unless you are satisfied. Fill in coupon in *pencil.* Send now—today—get this great help library for carpenters and builders.

FREE EXAMINATION COUPON

Theo. Audel & Co., 65 W. 23 St, New York

Send me AUDELS CARPENTERS and BUILDERS GUIDES. 4 numbers, $6, for *free examination.* If satisfactory, I will send you $1 in 7 days, then $1 monthly until $6 is paid.

Name .....

Address .....

Occupation .....

Employed by 6-T-58

"BAYONNE"

ROOF AND DECK CLOTH

REG. U. S. PAT. OFF.

Is a Guaranteed Waterproof

READY TO LAY ROOFING CANVAS

That does not require a White Lead bedding and will not

Crack or Buckle or Peel

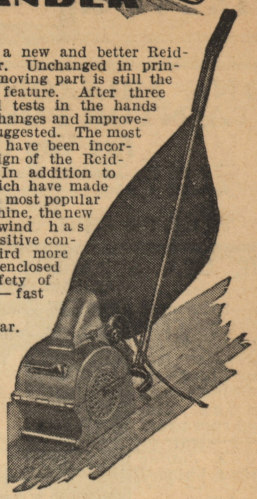
Laid on dry boards and given a coat of paint and the job is done.

Send for Sample Book T

John Boyle & Co., Inc.

112-114 Duane St., NEW YORK
Branch, 1317-1319 Pine St., ST. LOUIS

The Reid-Way WHIRLWIND SANDER



NOW comes a new and better Reid-Way sander. Unchanged in principle—one moving part is still the paramount feature. After three years of practical tests in the hands of users, certain changes and improvements have been suggested. The most practical of these have been incorporated in the design of the Reid-Way Whirlwind. In addition to those features which have made the Reid-Way the most popular light sanding machine, the new Reid-Way Whirlwind has more efficiency—positive control—does one-third more work. Completely enclosed to insure the safety of operators. Light — fast cutting—dustless.

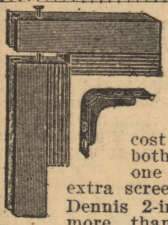
Write for circular.

Perfect control and ease of handling insured with the Whirlwind model through the use of ball-bearing guide rollers. A convenient handle on the front facilitates bench sanding.

THE REID-WAY CO.
774 North Sixteenth Street
Cedar Rapids, Iowa

MORE CARPENTERS

WANTED AT ONCE!



to Earn Big Wages Spare or Full Time with the Dennis Line

Our patented 2-in-1 Perfection Frame Stock saves half your material cost and labor. **Your saw cuts** both frame and screen bead at one time. No loose pieces. No extra screen bead to buy. No waste. Dennis 2-in-1 Frame stock costs no more than ordinary kind without screen bead. After frame is cut and nailed together, screen bead can be instantly removed with sharp knife.

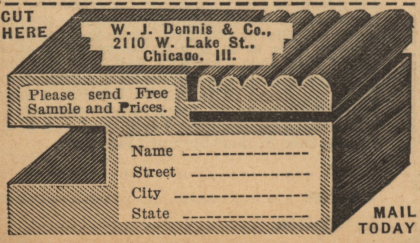
Carpenters everywhere are *doubling their profits* handling the Dennis line.

Get the facts NOW on this money making business. Send the coupon in TO-DAY.

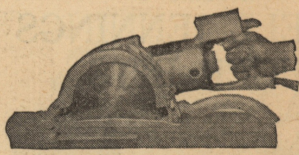
W. J. DENNIS & COMPANY

2110-20 W. Lake St. Chicago, Ill.

CUT HERE



Easy to Use



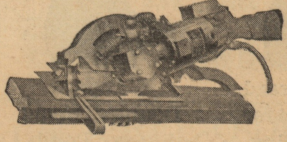
Model "K"

$95

at Chicago

--Fast--

Rips a plank 10 ft. long 2" thick in 30 sec. Cuts through Indiana Limestone 10 ft. long 1¼" deep in 90 sec. Weighs only 15 lbs. G. E. Universal Motor. Wodack Safety Guard; Saw Dust Blower.



Bevel Cuts

--Big Capacity--

Model B Wodack Saw cuts up to 4¾" with 11" diam. blade, and makes mitre cuts to 60 degrees. Tilts to right, giving clear vision all the time. G. E. Universal Motor develops 1 and 9-10ths h. p. under full load. Safety Guard. Saw Dust Blower.

--And!--

2 More Wodack Saws, Model C, and D. Combination Lock Mortiser and Router Wodack Electric Hammer.

Write today for full information and demonstration on your own work

F. L. ROGERS & CO.

27 South Jefferson St., Chicago, Ill.

Also New York

EXTRA DOLLARS *for* YOU *the year 'round~installing*

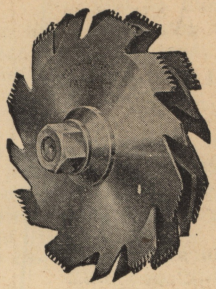
Numetal PATENTED WEATHER STRIPS

THIS profitable work will make you many extra dollars every week in the year. There's no "slack season" because there are so many prospective NUMETAL *Weather Stripping* jobs waiting for you. No special tools needed and NUMETAL is easily installed and free from back-calls for service and adjustments. No investment needed. Get material as needed from your hardware and lumber dealers. Write today for our money-making proposition before your city is closed.

MACKLANBURG-DUNCAN COMPANY
Oklahoma City, Okla.

You need a

HUTHER Dado head



Developed from our own patents, this adjustable groover cuts either with or across the grain. Cutters may be used singly, in pairs or in any combination necessary for desired cut.

Send for one on approval. It may be returned at our expense if unsatisfactory.

Huther Bros. Saw Mfg. Co.
Rochester, N. Y.

Makers of Better Saws for More than Fifty Years

SEND FOR YOUR PAIR

The AUSTRAL SASH SUSTAINER

LESS COST LESS TROUBLE

No More Weights, Pulleys, Cords To Break Or Spring Bolts

USED IN BUNGALOWS, CITY HOUSES AND RURAL HOUSES

AUSTRAL WINDOW COMPANY
101 PARK AVE. NEW YORK

Austral Window Co.,
101 Park Ave.,
New York

Please send me a sample pair of AUSTRAL SASH SUSTAINERS for which I enclose 50c (this covers only actual cost and postage.)

Name .....

Address .....

MAYHEW
Square Head Nail Set

A real nail set

Original design—easy to grip with cold or oily fingers—stays put. Lay it down and *there* it is when you want it. Square head prevents rolling.

Hand-forged crucible steel, electrically tempered. Mayhew quality clear through.

Length 4 inches—1-32, 2-32, 3-32, 4-32 and 5-32 points. 15 cents each.

Ask your Hardware Dealer

MAYHEW STEEL PRODUCTS, INC.,
Shelburne Fall, Mass.

SAND'S WOOD AND ALUMINUM LEVELS

STANDARD OF PERFECTION AND ACCURACY

Built for the artisan and discriminating mechanic of the craft

CARPENTERS ALUMINUM LEVEL

No. 24-24" 6 Glasses, $6.00.

Also made 26" 28" 30" lengths. Reversible. Can be used in any position. Will plumb any end or level any edge up.

Sand's Levels Tell The Truth

Sold by hardware dealers everywhere, or sent direct on receipt of price. Parcel post charges prepaid. Send for complete catalogue.

SAND'S LEVEL & TOOL CO.
Detroit, Mich., U. S. A.

CARPENTERS WANTED for SPARE TIME WORK

Do you know that carpenters everywhere have found the installation of ALLMETAL Weatherstrip an ideal side line? For them, each otherwise idle hour is another opportunity for weatherstrip profit.

All indications point to 1929 as being the greatest metal weatherstrip year ever known. If you are a good mechanic, you too can install ALLMETAL Weatherstrip and secure your share of spare time profits.

Let us tell you how.

WE LOAN NECESSARY TOOLS

Allmetal Weatherstrip Co.
227 West Illinois Street,
Chicago, Ill.

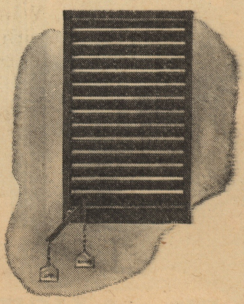
Gentlemen: Please send samples and information.

Name .....

Address .....

City .....State .....

GABELOUVRE ATTIC VENTILATOR



"HELPS SELL HOUSES"

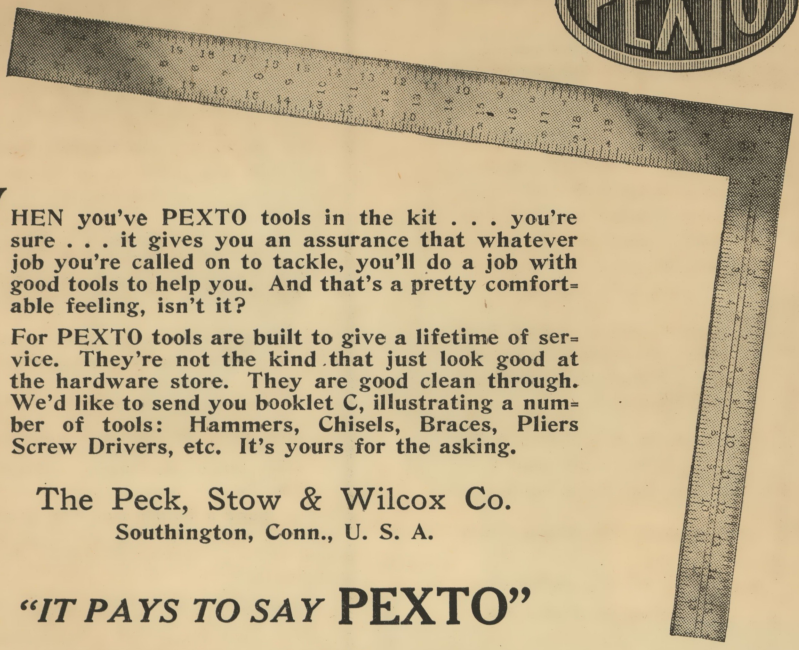
Proper ventilation in the attic is important. The GABELOUVRE, made to last a lifetime, affords 80% area of opening, admits light, but excludes the elements. Rustproof. Opens and closes by means of pull chains. Home buyers appreciate this feature in houses.

Write us for further information and prices.

THE VENTILOUVRE COMPANY
BRIDGEPORT, CONN.

ASSURANCE

PEXTO



WHEN you've PEXTO tools in the kit . . . you're sure . . . it gives you an assurance that whatever job you're called on to tackle, you'll do a job with good tools to help you. And that's a pretty comfortable feeling, isn't it?

For PEXTO tools are built to give a lifetime of service. They're not the kind that just look good at the hardware store. They are good clean through. We'd like to send you booklet C, illustrating a number of tools: Hammers, Chisels, Braces, Pliers Screw Drivers, etc. It's yours for the asking.

The Peck, Stow & Wilcox Co.
Southington, Conn., U. S. A.

"IT PAYS TO SAY PEXTO"

STOP WAGES--START AN INCOME

There are no "poor pays" or off seasons for the owners of an AMERICAN Floor Sanding machine. Summer, Fall, Winter, Spring: Rain or snow he has an established business. There are always either new floors being layed or old floors to resurface, and, Somebody gets the contract. ***It might just as well be YOU.***

$5,000 to $12,000 Yearly

Mr. John Groves, Carrington, Ky. writes: The first day I run my machine I made $64.50 and only run the machine about four hours a day.

YOU Can Do As Well

We show you how and furnish the material. Use the coupon today. Ask for free literature giving the evidence on the AMERICAN Line and our "Business set up" plan. Establish a business of your own.

AMERICAN FLOOR SURFACING MACHINE COMPANY,
522 So. St. Clair Street, Toledo, Ohio.

Gentlemen:

Please tell me all about how I can get started in the floor finishing business—and details of your "Business Set Up" plan. It is understood I assume no obligation in requesting this information.

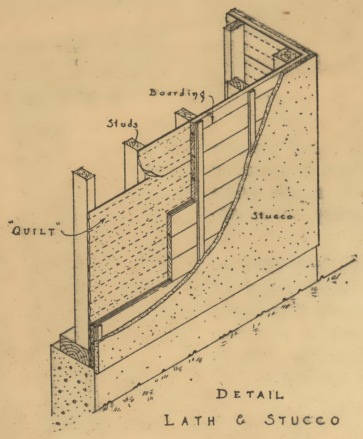
Name .....

Address .....

City ..... State.....

New Free Book

Helps You With Your Customers



The cut above is one of a large number in our free book "Build Warm Houses". It shows one way of insulating a stucco home so as to save 10 to 20 percent in the cost of the heating equipment (boiler, piping and radiators) and 20 to 30 percent in fuel every year.

It is easy and economical to insulate with

Cabot's Quilt

Clip and mail the coupon below for full information on Cabot's Quilt and other Building Specialties. Mail it today. No obligation.

Send in this Coupon Today

Samuel Cabot INCORPORATED

141 MILK ST., BOSTON, MASS.

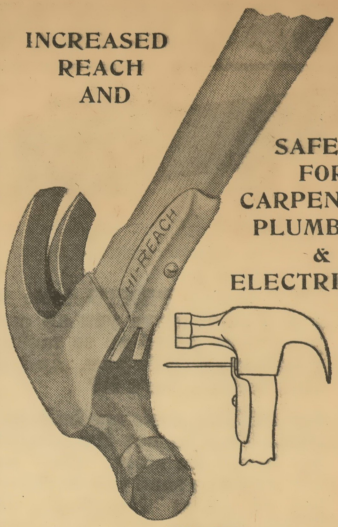
Please send me your free book, "Build Warm Houses."

Name.....

Address.....

C-6-29

INCREASED REACH AND SAFETY FOR CARPENTERS PLUMBERS & ELECTRICIANS



THE NEW

HI-REACH NAIL CLAMP

Price 35c

Saves using a ladder or Shifting of a Scaffold. The clamp holds the nail thus safeguarding yourself when reaching to the side. Reach increased twenty to twenty-four inches.

Send 35c Postpaid Write to

ADVANCE TOOL & MFG. CO.,

1656-62 Holton Street MILWAUKEE, WIS.

The FARRAND Rapid Rule

GREATER VALUE IN PRESENT MODEL
NEW MODEL AT LOWER PRICE

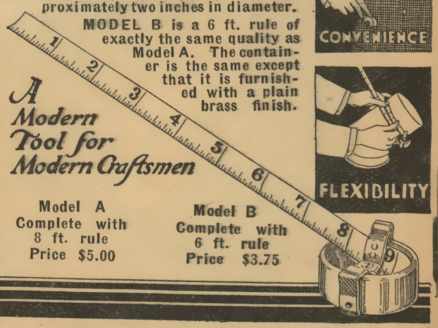
Unceasing effort on the part of the manufacturer to provide craftsmen with a measuring tool of the highest quality and greatest value makes possible the following announcement.

TWO MODELS ARE NOW AVAILABLE

MODEL A is an eight foot rule of finely tempered steel, highly polished and nickel plated. The container is a hand finished, nickel plated cup, approximately two inches in diameter.

MODEL B is a 6 ft. rule of exactly the same quality as Model A. The container is the same except that it is furnished with a plain brass finish.

A Modern Tool for Modern Craftsmen

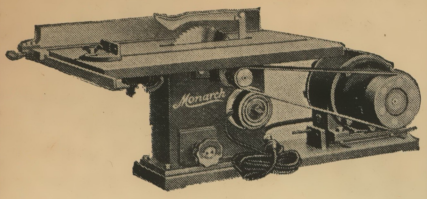


Model A Complete with 8 ft. rule Price $5.00

Model B Complete with 6 ft. rule Price $3.75

Ask your Dealer or write

Hiram A. Farrand, Manufacturer
Berlin, New Hampshire



A POWER SAW TABLE

At a Popular Price

AS a permanent, profitable investment you can't buy a better saw than this ball-bearing Bench Saw . . . motor operated and guaranteed a precision machine in every particular.

Table 18" x 24" can be raised or lowered 2¼" with tilting angle up to 45 degrees. Combination rip, cut-off, and miter-gauge is furnished; also splitter, guard, and 8" saw. Sold with or without base and motor.

Complete specifications and low price on request.

AMERICAN SAW MILL MACHINERY CO.
136 Main Street, HACKETTSTOWN, N. J.

FOR PERMANENT QUALITY REPAIR

AT HARDWARE AND PAINT STORES

PLASTIC WOOD

[Reg. U. S. Pat. Off.]

Handles Like Putty
Hardens Into Wood

1 lb. $1.00

¼ lb. 35¢

Addison-Leslie Co.
612 Bolivar St., Canton, Mass.

MAKE THIS TEST

Drive a 60d spike or pin into a 2 inch plank, bite into it with the claw of an Estwing and pull the head right through the wood. Will pull anything within the strength of the user. Can't break, because forged in one piece from tool steel. This is only one of many exclusive features. Use it once and you will never go back to ordinary hammers.

ESTWING
Mfg. Co.
Rockford, Ill.

Can't Break or Loosen

Guaranteed Perfect Balance

Easier Drive

Show this to your dealer, he will be pleased to serve you. Or send money with order; inclose 15c extra for each tool ordered, which pays postage; or pay mailman.

	East of the Rockies
☐ Curved Claw Hammer, 12 oz. Head	$2.00
☐ " " " 16 oz. "	2.00
☐ " " " 20 oz. "	2.25
☐ Ripping " " 12 oz. "	2.00
☐ " " " 16 oz. "	2.00
☐ " " " 20 oz. "	2.25
☐ Half Hatchet No. 2, Smooth Face	2.25
☐ Util-axe 28 oz. with Leather Sheath	2.25
☐ Scout Axe, 24 oz. " " "	2.25
☐ Camp Knife " " "	2.00
☐ Ball Pein Hammer, 16 oz. Head	1.75

Scored faced Hammers and Half-Hatchet 25c extra

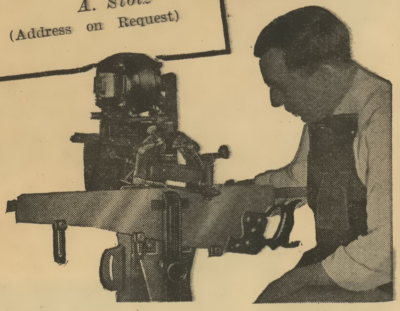
Out of Work - Got A Foley - Now Making GOOD MONEY

I lost my job on account of a strike. I took my last money and bought a Foley Saw Filer and I am making a comfortable living filing saws. I am doing a lot of work. Saws filed on the Foley cut truer, cleaner, easier and faster than hand-filed saws.

A. Stolz

(Address on Request)

Read This Letter



YOU can have a steady, year 'round business of your own, or make $2 to $4 an hour EXTRA MONEY every day filing saws for others. NO CANVASSING. Dozens of carpenters like yourself are doing it with the

FOLEY AUTOMATIC SAW FILER

There is nothing like a Foley to keep your own saws in perfect cutting condition so they cut better than new. It files and joints AUTOMATICALLY. Just insert a saw and snap the switch. More than twice as fast as hand filing. No eye strain. Files all kinds of hand saws, band saws ⅛" to 4½" wide and cross-cut circular saws 3" to 24" diameter. Retooths old hand saws.

Think of the big year 'round filing business you can have from other carpenters, contractors, woodworking plants, schools, factories, etc. We'll help you. Send the coupon below for FREE PLAN on how to start a good paying saw filing business. DO IT NOW!

MAIL THIS COUPON for FREE PLAN

Foley Saw Tool Co., 478 Foley Bldg., 11 Main St., N. E., Minneapolis, Minn.
Please send me FREE PLAN on how to start my own saw filing business with the Foley Filer.

Name .....

Address .....

City ..... State.....

Hard Headed

This is a questionable compliment when applied to a man, but it is a real recommendation when it is applied to screws.

That American Screws are "hard headed" is proved by the fact that their slots do not buckle under heavy handling or *automatic driving*. Their gimlet points and true running threads make them easy to insert.

American Screws of all types can be supplied immediately from stocks maintained in Chicago and Providence.

MADE IN THE UNITED STATES OF AMERICA

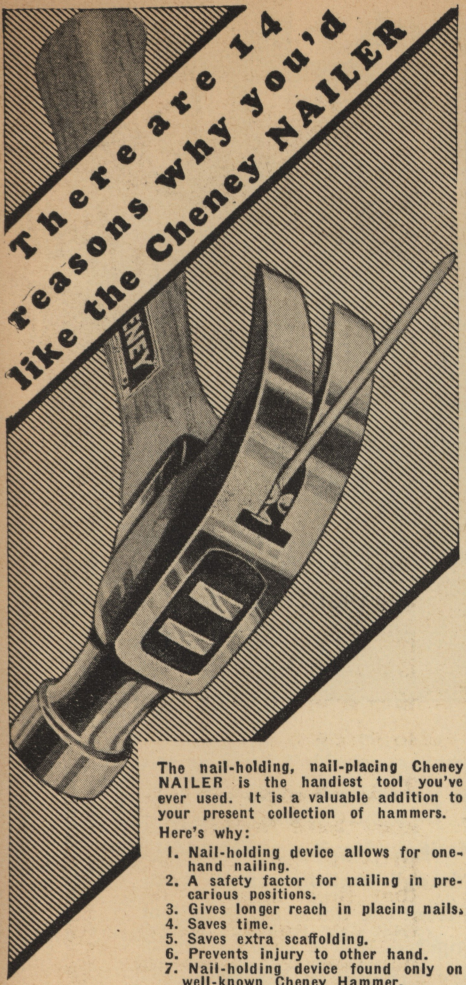
TIRE BOLTS	WOOD SCREWS	STOVE BOLTS	MACHINE SCREWS

AMERICAN SCREW CO.

PROVIDENCE, R.I., U.S.A.

WESTERN DEPOT, 225 WEST RANDOLPH ST. CHICAGO, ILL.

"Put It Together With Screws"


There are 14 reasons why you'd like the Cheney NAILER

The nail-holding, nail-placing Cheney NAILER is the handiest tool you've ever used. It is a valuable addition to your present collection of hammers.

Here's why:

1. Nail-holding device allows for one-hand nailing.
2. A safety factor for nailing in precarious positions.
3. Gives longer reach in placing nails.
4. Saves time.
5. Saves extra scaffolding.
6. Prevents injury to other hand.
7. Nail-holding device found only on well-known Cheney Hammer.
8. Nail-holding device an integral part of hammer—no attachments—no extra weight—doesn't affect "hang."
9. Every Bell Face and Plain Face Cheney Curved Claw Hammer in sizes of 16 oz. and over has the nail-holding device. No extra cost.
10. Not a single good Cheney Hammer point has been sacrificed for nail-holding device—materials, "hang," finish, all up to the Cheney high standard.
11. Securely holds nails of practically any size.
12. Nails quickly inserted, securely held and release themselves.
13. Built to withstand soundest blows. First blow often more than half drives nail.
14. Fully guaranteed.

Ask your dealer for this marvelous hammer. You'll wonder how you ever managed without one.

PRENTISS VISES

PRENTISS VISE CO.

106-110 LAFAYETTE ST. NEW YORK CITY

CHENEY HAMMERS

2778

SEND FOR *YOUR* SAMPLE OF

CASCO GLUE

TRADE MARK REG. U.S. PAT. OFF.

WATERPROOF

a dry powder to which you simply add cold water

NO WASTE ODOR HEATING

You can now throw away that messy glue pot, get better results and save money.

Casco Waterproof Glue is used by leading aeroplane manufacturers and by the woodwork manufacturing trade in general. It is widely known as a reliable, everlastingly durable glue. It will glue practically everything—wood to wood, wood to metal, glass, cardboard, leather or paper and it is inexpensive. One pound makes 1½ quarts of liquid glue and it goes twice as far as ordinary glue. It is now available in ½ and 1 pound packages. Once you try it—you will use no other.

This Folder FREE Send for it. Tells how to get the best results from GLUE.

Fill out completely the coupon below and we will promptly forward prepaid a generous package of Casco Glue and you can judge its merits.

THE CASEIN MANUFACTURING CO.
21 Park Row, New York, N. Y.

SPECIAL INTRODUCTORY TRIAL OFFER

The Casein Mfg. Co., 21 Park Row, New York

Enclosed find 25c (stamps only) to cover postage and handling cost for which send me your trial package of Casco Glue.

Name .....

Street .....

City ..... State .....

Hardware Dealer's Name (Please include)

.....

"And bring it back ◆ it's a Maydole"

Most carpenters and cabinet-makers wouldn't trade or sell their Maydoles for many times the original price.

Take one in your hand,—heft it, swing it—you'll understand why. A remarkable "hang" that has never been equalled, a head press-forged from the finest grade of tool steel—each end carefully tempered, and a clear, straight grained, second growth hickory handle that has been seasoned for years and put into the head "for good". The finest hammer that money can buy.

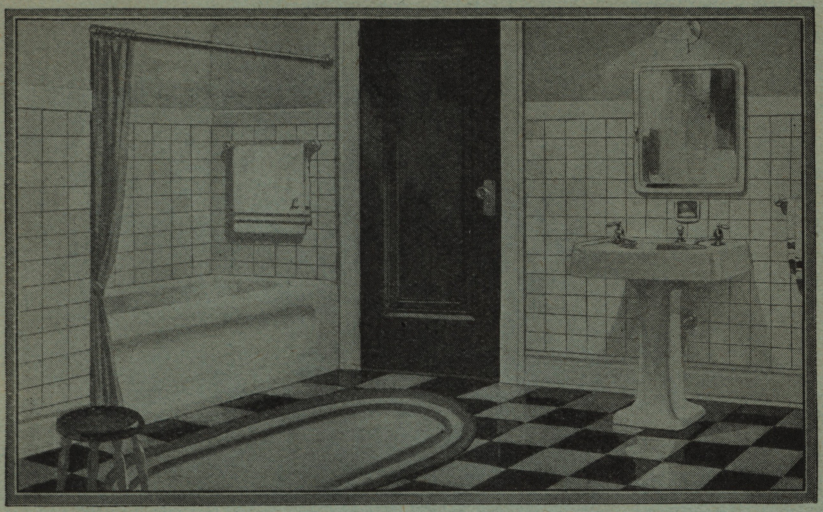
Ask your dealer to show you the style and weight that fits your grip and swing. Write us for a free copy of Pocket Handbook 23 "A" containing useful tables and valuable information.

YOUR HAMMER SINCE 1843

Maydole Hammers

The David Maydole Hammer Co., Norwich, N. Y.

Announcing
Sheetrock Tile Board



The many advantages of Sheetrock Tile Board are made possible by months of experimenting and the designing of improved machines.

Sheetrock Tile Board has deep, sharp indentations, which provide beautiful tile effects for the walls of bathrooms, kitchens, restaurants, stores, etc.

It is made in a square tile design. Its light cream colored surface can be decorated with the delicate shades now so popular for bathrooms and kitchens.

Sheetrock Tile Board is fireproof, rigid and non-warping. It is identified by the continuous brand down its reverse side. Its cost is low.

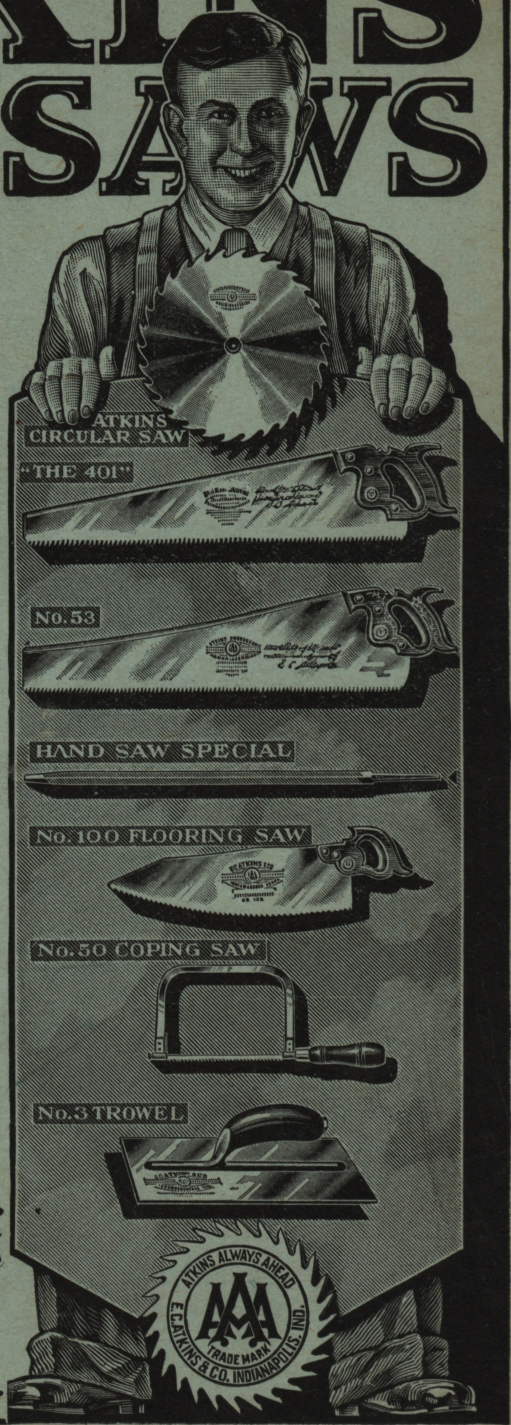
Your lumber dealer has Sheetrock Tile Board. Or send for sample.

United States Gypsum Company
Dept. 4A, 300 W. Adams St., Chicago, Ill.

Canadian Gypsum Company, Ltd.
Hillyard Street, Hamilton, Ontario
Sole Canadian Distributors

SHEETROCK
TILE BOARD U.S.G.

ATKINS SILVER STEEL SAWS



A SAW—

Properly Made, Is The Fore-Runner Of Successful Production

Atkins Saws are the acme of perfection, first, because they are made from SILVER STEEL, Atkins patented formula; second, because the prescribed heat-treatment is clocked by electrically controlled furnaces; third, because the tensioning and hammering is done by Atkins expert sawsmiths, some of whom have been a quarter century in the service.

When you buy Saws, Saw Tools, Machine Knives, Dado Heads, Grinding Wheels or Files—specify ATKINS and

Get The Most Value For Your Money.

E.C. ATKINS & CO.

ESTABLISHED 1857 THE SILVER STEEL SAW PEOPLE

Home Office and Factory, INDIANAPOLIS, INDIANA

Canadian Factory, Hamilton Ontario

Machine Knife Factory, Lancaster N.Y.

Branches Carrying Complete Stocks In The Following Cities:

Atlanta
Memphis
Chicago
Minneapolis
New Orleans
New York City
Portland, Ore.
San Francisco
Seattle
Paris, France
Vancouver, B.C.